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1981 LP-GAS MARKET FACTS

NATIONAL LP-GAS ASSOCIATION

PRODUCTION / TRANSPORTATION / STORAGE / IMPORT / EXPORT / SALES / EQUIPMENT / UTILIZATION

1981 LP-GAS INDUSTRY MARKET FACTS

DEVELOPED BY STATISTICAL AND MARKET RESEARCH COMMITTEE
NATIONAL LP-GAS ASSOCIATION
Robert Nicholson, Chairman

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ABOUT THIS REPORT

The LP-gas production and sales data in this report are extracted from reports published by the Energy Information Administration (EIA), U. S. Department of Energy. The production data are published in EIA-0109 "Monthly Petroleum Statement" from information reported to EIA by companies operating petroleum refineries and natural gas liquids processing plants. The sales data are collected by EIA using Form EIA-174 "Sales of Liquefied Petroleum Gases and Ethane". Approximately 3,400 suppliers of ethane and liquefied petroleum gases (LP-gas) report to EIA on this form. Propane, butane and butane-propane mixtures comprise the liquefied petroleum gases in this EIA report. The suppliers reporting these data include refiners, operators of natural gas processing plants, LP-gas dealers and importers and constitute the census of companies that sell LP-gas.

Prior to 1979, EIA expanded data received in a survey of LP-gas marketers to equal the available domestic production of LP-gas. Beginning in 1979, however, EIA assumed that the LP-gas sales reports received accounted for all of the LP-gas sold. Since EIA received data from less than 3,400 marketers in 1979, 1980 and 1981, and over 3.5 billion gallons more of LP-gas was reported produced than sold in each of 1979, 1980 and 1981, it is concluded that the 1981 LP-gas sales data reported are not comparable to sales data prior to 1979. Therefore, to avoid confusion, sales data from 1978 and previous annual issues of LP-Gas Market Facts have been excluded from this report.

In addition, EIA has included 6.0 billion gallons of ethane used exclusively as a petro-chemical feedstock in this report of LP-gas sales. EIA also withheld data from the detailed report for a number of entries where publication of the specific data would have released confidential information regarding the sales of the limited number of companies submitting these reports. These data have been included in the respective totals, however. Such data handling is denoted by "w" as appropriate.

Distribution

One copy available to each member as a service of the National LP-Gas Association. Additional copies to members $2.75 each. Copies to NLPGA non-members $5.50 each. Order from National LP-Gas Association, 1301 W. 22nd Street, Oak Brook, Illinois 60521.

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LP-GAS, THE INDUSTRY IN BRIEF

WHAT IS LP-GAS?

The "LP" in LP-gas stands for Liquefied Petroleum, and it simply means that the gas is derived from petroleum products and sold in compressed, or liquefied form. The makeup of the gas can vary, but the most common forms include propane, butane, and propane/butane mixes. Propane is by far the predominant type of fuel. Liquefying the gas provides a highly efficient and safe method of storing and transporting the product: the fluid occupies a mere 1/270th the space of the gas, which returns to its natural state when released to the atmosphere under normal pressure. Energy content of propane, as measured in British Thermal Units, is 91,500 BTU per gallon, or about 2,500 per cubic foot.

In the United States, about 70% of LP-gas is extracted from natural gas, while 30% is refined from crude oil. Like natural gas, LP-gas is odorless, and an artificial smell is added. It is also heavier than air, clean-burning, and combustion produces negligible pollutants.

USES OF LP-GAS

This fuel is one of the country's most versatile sources of energy. It is both portable and easy to regulate. Its most common use is as a straight source of heat. It cooks food, warms homes, dries clothes, heats water, and barbecues for homeowners located in suburban, small town, and rural areas. It can also power refrigerators and air conditioners. Portable LP-gas brings city comfort to families everywhere. It can do anything in the wilderness that it can do at home, and LP-gas has long been a major comfort for campers.

LP-gas is also a staple on farms, where it's used for crop drying, flame weeding, tobacco curing, defoliation, poultry and pig brooding, stock tank heating, and frost protection. It also powers trucks, pumps, standby generators, and other farm equipment.

Commercial establishments, such as hotels, motels, and restaurants, use LP-gas much like the homeowner. Industry relies on it for brazing, soldering, cutting, heat-treating, annealing, vulcanizing, and many other uses.

As an engine fuel, its minimal emissions allow it to be used indoors, which explains its wide popularity in fork-lift trucks. This same feature makes it a desirable fuel in congested areas, as the many fleets of city buses, taxis and delivery trucks will attest. Gasoline engines convert easily to LP-gas, efficiency improves, and engine life is increased.

THE MARKET

LP-gas ranks fourth in supplying the nation's energy needs. The industry serves about eighteen million customers, including homes, farms, individuals, businesses, and government groups. LP-gas is essentially a rural fuel, and roughly 1½ million farms, or about half of them, depend on the fuel for a variety of uses. A rough calculation of the market shows approximately 60 million people dependent on LP-gas for one use or another.

THE INDUSTRY'S ASSETS

The distribution of LP-gas requires the effort of more than 86,000 people in the United States. Capital investment in excess of $7.5 billion includes 70,000 miles of cross-country pipelines, 25,000 transport and delivery trucks, 22,000 railroad tank cars, 250 primary storage facilities with capacity of seven billion gallons, a fleet of 370 barges and tankers, 8,000 bulk storage and distribution points, and 25,000 retail outlets.

Behind this vast network is the multi-billion dollar complex of petroleum refining and natural gas producing industries operated by LP-gas suppliers. More than 200 oil and gas companies produce LP-gas and distribute it in a number of ways. Some of them maintain their own LP-gas retail outlets, some sell on contract to established LP-gas marketers, and some of the gas finds its way to the open market through brokers.

WHAT IS NLPGA?

The National LP-Gas Association is a trade association offering a full range of services, and represents all segments of the liquefied petroleum gas industry. Included are producers of LP-gas, wholesale and retail marketers, gas appliance and equipment manufacturers and distributors, tank and cylinder fabricators, transport firms and others. NLPGA has nearly 4,000 members throughout the U.S. and 29 other countries. Forty-six regional and state LP-gas associations are affiliated with the national organization.

LP-GAS PRODUCTION

Source: Energy Information Administration

TOTAL ANNUAL PRODUCTION

YEAR	GALLONS*
1955	7,804,528,000
1956	8,669,817,000
1957	8,834,314,000
1958	9,150,508,000
1959	9,927,995,000
1960	10,661,812,000
1961	11,242,011,000
1962	11,350,145,000
1963	13,005,979,000
1964	13,829,305,000
1965	14,311,239,000
1966	15,077,212,000
1967	16,563,645,000
1968	17,392,200,000
1969	18,051,264,000
1970	18,593,568,000
1971	19,238,604,000
1972	19,539,534,000
1973	19,590,690,000
1974	18,780,258,000
1975	18,079,908,000
1976	17,750,922,000
1977	17,634,624,000
1978	17,167,458,000
1979	16,774,968,000
1980	16,493,106,000
1981	16,704,324,000

*Figures prior to 1959 include an undisclosed amount of ethane production.

PRODUCTION OF LP-GAS AT NATURAL GAS PROCESSING PLANTS, 1981

(thousands of gallons)

BY P.A.D. DISTRICTS	PROPANE	BUTANE	BUTANE-PROPANE MIXTURE	ISO-BUTANE	TOTAL
DISTRICT I:	166,068	81,648	—	12,180	259,896
DISTRICT II:	1,588,020	621,054	252	232,638	2,441,964
DISTRICT III:	4,938,612	2,387,868	33,432	1,475,964	8,835,876
DISTRICT IV:	223,062	120,876	756	2,310	347,004
DISTRICT V:	84,336	27,342	16,800	9,282	137,760
Sub Total	7,000,098	3,238,788	51,240	1,732,374	12,022,500

PRODUCTION OF LP-GAS AT REFINERIES

(thousands of gallons)

BY P.A.D. DISTRICTS	PROPANE	BUTANE	BUTANE-PROPANE MIXTURE		TOTAL
DISTRICT I:	582,498	128,562	2,184		713,244
DISTRICT II:	1,237,110	(420)	(2,520)		1,234,170
DISTRICT III:	1,759,800	197,274	116,172		2,073,246
DISTRICT IV:	62,958	(3,150)	(2,310)		57,498
DISTRICT V:	446,586	120,582	35,238		602,406
Sub Total	4,088,952	442,848	148,764		4,680,564
Total U.S. Production	11,089,050	3,681,636	200,004	1,732,374	16,703,064

Note: Does not include production of isobutane at refineries.

Source: Energy Information Administration

ANNUAL PRODUCTION, BY TYPE OF GAS, 1964-81
(thousands of gallons)

	PROPANE	BUTANE	BUTANE-PROPANE MIXTURE	ISO-BUTANE	OTHER*	TOTAL PRODUCTION	DAILY AVERAGE PRODUCTION
1964	7,791,469	3,168,093	554,258	1,014,934	1,300,551	13,829,305	37,785
1965	8,177,271	3,074,379	595,132	1,113,008	1,351,449	14,311,239	39,209
1966	9,168,793	3,722,368	997,696	1,188,355	—	15,077,212	41,307
1967	10,159,783	4,021,651	1,099,581	1,282,630	—	16,563,645	45,380
1968	10,867,290	4,238,976	988,344	1,297,590	—	17,392,200	47,650
1969	11,427,738	4,661,706	760,284	1,201,536	—	18,051,264	49,456
1970	12,011,706	4,597,320	629,034	1,355,508	—	18,593,568	50,941
1971	12,834,738	4,544,190	426,342	1,433,334	—	19,238,604	52,709
1972	13,108,242	4,516,554	418,446	1,496,292	—	19,539,534	53,533
1973	13,093,332	4,555,656	420,126	1,521,576	—	19,590,690	53,673
1974	12,347,664	4,502,862	392,574	1,537,158	—	18,780,258	51,453
1975	12,005,028	4,302,564	298,284	1,474,032	—	18,079,908	49,534
1976	11,773,230	4,259,262	340,368	1,378,062	—	17,750,922	48,633
1977	11,886,210	4,089,456	308,574	1,350,384	—	17,634,624R	48,314
1978	11,625,894	4,043,046	347,886	1,150,632	—	17,167,458	47,034
1979	11,059,650	3,929,646	190,092	1,680,840	—	16,860,228	46,192
1980	10,814,790	3,852,198	208,656	1,617,462	—	16,493,106	45,187
1981	11,089,050	3,681,636	200,004	1,732,374	—	16,703,064	45,762

**This category discontinued after 1965.*

Source: Energy Information Administration

MONTHLY PRODUCTION, BY TYPE OF GAS*, 1981
(thousands of gallons)

	PROPANE	BUTANE	B-P MIX	ISO-BUTANE	TOTAL
JANUARY	985,908	309,834	11,256	149,898	1,456,896
FEBRUARY	879,690	274,722	22,428	129,570	1,306,410
MARCH	950,460	297,822	29,442	141,162	1,418,886
APRIL	911,820	311,388	24,150	149,100	1,396,458
MAY	934,794	322,938	25,284	151,158	1,434,174
JUNE	880,404	327,390	12,390	148,260	1,368,444
JULY	876,666	328,104	13,818	145,278	1,363,866
AUGUST	918,246	298,704	17,052	142,422	1,376,424
SEPTEMBER	896,322	308,868	11,676	143,514	1,360,380
OCTOBER	958,860	318,276	9,912	145,530	1,432,578
NOVEMBER	935,844	299,796	12,852	148,764	1,397,256
DECEMBER	960,036	283,794	9,744	137,718	1,391,292
TOTAL	**11,089,050**	**3,681,636**	**200,004**	**1,732,374**	**16,703,064**

**Propane includes propylene; butane includes butylenes.*

R - Revised

Source: Energy Information Administration

LP-GAS UNDERGROUND BULK STORAGE CAPACITIES, U.S., 1981-1979

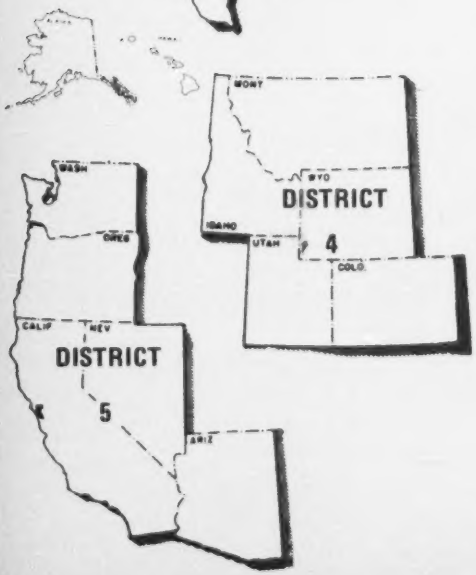
(thousands of gallons)

	1981				1979			
	Propane	Butanes	Other[1]	Total	Propane	Butanes	Other[1]	Total
Alabama	7,518	—	—	7,518	7,518	—	—	7,518
Alaska	—	—	—	—	—	—	—	—
Arizona	103,992	92,988	—	196,980	—	—	142,086	142,086
Arkansas	—	—	—	—	—	—	—	—
California	—	—	—	—	—	—	—	—
Colorado	—	—	—	—	—	—	—	—
Connecticut	—	—	—	—	—	—	—	—
Delaware	—	—	—	—	—	—	—	—
Florida	—	—	—	—	—	—	—	—
Georgia	10,920	—	—	10,920	9,240	—	—	9,240
Hawaii	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—
Illinois	80,430	45,780	1,806	128,016	77,826	46,284	—	124,110
Indiana	41,244	26,376	—	67,620	41,244	26,376	—	67,620
Iowa	22,470	2,100	—	24,570	22,470	2,100	—	24,570
Kansas	2,091,306	515,340	37,506	2,644,152	1,919,106	325,374	285,558	2,530,038
Kentucky	25,074	3,360	1,050	29,484	24,654	3,360	—	28,014
Louisiana	895,860	732,102	1,150,128	2,778,090	720,720	719,880	841,344	2,281,944
Maine	—	—	—	—	—	—	—	—
Md. & D.C.	6,300	—	—	6,300	6,006	—	—	6,006
Massachusetts	—	—	—	—	—	—	—	—
Michigan	193,956	49,434	11,970	255,360	217,140	50,106	31,038	298,284
Minnesota	13,860	—	—	13,860	13,986	—	—	13,986
Mississippi	915,096	—	—	915,096	689,682	18,900	—	708,582
Missouri	44,394	—	—	44,394	44,394	—	—	44,394

(Continued from the preceding page)

	1981				1979			
	Propane	Butanes	Other[1]	Total	Propane	Butanes	Other[1]	Total
Montana	—	—	—	—	—	—	—	—
Nebraska	31,710	—	—	31,710	31,710	—	—	31,710
Nevada	—	—	—	—	—	—	—	—
New Hampshire	—	—	—	—	—	—	—	—
New Jersey	9,660	10,500	—	20,160	10,500	10,710	—	21,210
New Mexico	30,324	2,016	—	32,340	35,322	2,646	—	37,968
New York	210,210	—	—	210,210	209,496	10,332	—	219,828
North Carolina	—	—	—	—	—	—	—	—
North Dakota	—	—	—	—	—	—	—	—
Ohio	281,022	44,226	6,426	331,674	260,022	37,926	—	297,948
Oklahoma	42,756	15,960	14,868	73,584	41,538	16,002	10,752	68,292
Oregon	—	—	—	—	—	—	—	—
Pennsylvania	48,720	32,130	19,950	100,800	49,140	32,130	—	81,270
Rhode Island	—	—	—	—	—	—	—	—
South Carolina	80,010	—	—	80,010	67,200	—	—	67,200
South Dakota	—	—	—	—	—	—	—	—
Tennessee	—	—	—	—	—	—	—	—
Texas	2,135,280	1,616,874	1,935,906	5,688,060	2,540,664	1,869,924	377,034	4,787,622
Utah	5,280	—	—	5,280	6,888	—	—	6,888
Vermont	—	—	—	—	—	—	—	—
Virginia	—	—	12,684	12,684	—	—	12,684	12,684
Washington	—	—	—	—	—	—	—	—
West Virginia	21,000	—	—	21,000	—	—	—	—
Wisconsin	—	—	—	—	—	—	—	—
Wyoming	—	—	—	—	—	—	—	—
TOTAL CAPACITY	**7,348,392**	**3,189,186**	**3,192,294**	**13,729,872**	**7,046,466**	**3,172,050**	**1,700,496**	**11,919,012**

[1]Other includes B-P mixes and LP-Gas not otherwise identified.
Source: Gas Processors Association



THE DATA ON THIS PAGE CANNOT BE RELATED TO SIMILAR DATA IN EDITIONS OF "MARKET FACTS" PRIOR TO 1979 BECAUSE OF CHANGES IN THE ENERGY INFORMATION ADMINISTRATION DATA REPORTING METHODS. SEE PAGE i.

1981 SALES OF LP-GAS, BY P.A.D. DISTRICTS (1)
(thousands of gallons)

	DISTRICTS					
	1	2	3	4	5	TOTAL
PRODUCT						
Ethane	224,584	2,096,748	3,661,776	984	24,747	6,008,839
Propane	2,219,997	3,347,505	3,912,891	327,255	692,918	10,500,566
Butane	54,451	168,168	895,885	31,410	100,971	1,250,885
Butane - Propane Mixture	3,489	103,342	96,597	10	97,612	301,050
Total	2,502,521	5,715,763	8,567,149	359,659	916,248	18,061,340

(1) Includes Ethane - EIA Report did not permit exclusion of ethane because of withheld data.

Source: Energy Information Administration

SALES OF LP-GAS, BY PRINCIPAL USES
(thousands of gallons)

Year	Residential and Commercial	Chemical and Synthetic Rubber (4)	Internal Combustion	Industrial (1)	Utility Gas	All Other Uses (2)	TOTAL (3)
1979	4,764,402R	8,159,835	443,732R	2,105,386R	527,917R	3,200,370R	19,201,642R
1980	4,372,576	7,807,957	508,011	2,217,409	594,403	3,103,526	18,603,882
1981	4,231,736	9,775,912	550,721		438,195	3,064,776	18,061,340

R - Revised
(1) Includes Refinery Fuel.
(2) An undetermined amount of LP-gas for farm household and internal combustion engine fuel uses was reported in previous years under "Residential and Commercial" and "Internal Combustion", respectively.
(3) Includes ethane - EIA data did not permit exclusion of ethane because of withheld data.
(4) Includes Industrial and Refinery Fuel Beginning 1981.

Source: Energy Information Administration

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SALES OF LP-GAS BY STATES (1)
(thousands of gallons)

	1981	1980	1979
Alabama	179,477	171,182	190,234R
Alaska	5,900	6,602	6,359
Arizona	49,563	54,967	57,482R
Arkansas	146,331	167,662	166,570R
California	666,488	664,045	765,030
Colorado	146,507	133,872	129,048R
Connecticut	51,946	51,909	48,575
Delaware	33,964	110,647	235,552
Florida	385,932	370,742	286,783R
Georgia	265,529	257,479	253,650
Hawaii	51,993	54,400	52,327R
Idaho	34,268	34,365	37,728R
Illinois	1,336,804	1,342,506	1,711,367
Indiana	281,985	275,369	313,117
Iowa	384,621	386,291	485,359R
Kansas	290,308	290,718	325,936R
Kentucky	308,135	353,619	355,637R
Louisiana	2,367,374	1,828,889	2,126,320
Maine	27,778	30,227	w
Maryland & D.C.	78,531	71,405	67,864R
Massachusetts	98,408	73,515	73,829
Michigan	216,690	232,994	248,343
Minnesota	231,629	266,239	281,219R
Mississippi	176,356	196,949	197,379R
Missouri	286,409	315,519	447,728R
Montana	39,930	62,488	36,150
Nebraska	156,456	155,631	154,733R
Nevada	32,488	30,446	28,101
New Hampshire	42,463	44,278	45,571R
New Jersey	338,643	255,369	261,503
New Mexico	121,314	162,936	148,598
New York	202,786	194,784	187,154R
North Carolina	292,940	276,006	260,181R
North Dakota	56,441	45,046	56,551R
Ohio	1,568,279	1,531,116	1,541,193R
Oklahoma	278,127	310,884	278,829R
Oregon	48,966	46,821	48,434
Pennsylvania	298,663	250,951	281,271
Rhode Island	10,796	10,146	10,472
South Carolina	108,716	w	w
South Dakota	69,192	87,508	81,060R
Tennessee	58,914	96,391	99,416R
Texas	5,576,297	6,565,445	6,022,586
Utah	60,104	44,998	54,805R
Vermont	24,324	w	w
Virginia	114,763	w	w
Washington	60,850	51,430	50,302
West Virginia	126,339	118,809	103,053
Wisconsin	191,773	208,808	227,636R
Wyoming	78,850	70,215	68,341R
Total	18,061,340	18,603,882	19,201,642R

R - Revised
w/ - Data withheld to avoid disclosing reports for individual companies. These reports included in totals.
(1) - Includes ethane - EIA data did not permit exclusion of ethane because of withheld data.

Source: Energy Information Administration

THE DATA ON THIS PAGE CANNOT BE RELATED TO SIMILAR DATA IN EDITIONS OF "MARKET FACTS" PRIOR TO 1979 BECAUSE OF CHANGES IN THE ENERGY INFORMATION ADMINISTRATION DATA REPORTING METHODS. SEE PAGE I.

SALES OF LP-GAS, BY STATES AND PRINCIPAL USES, 1981
(thousands of gallons)

	Residential and Commercial	Chemical and Industrial	Internal Combustion	Utility Gas	All Other Uses (2)	Total (3)
Alabama	134,227	w	8,257	w	25,820	179,477
Alaska	w	2,428	—	—	w	5,900
Arizona	31,308	w	9,149	w	5,962	49,563
Arkansas	85,923	w	13,587	w	35,072	146,331
California	217,631	298,804	67,749	23,125	59,179	666,488
Colorado	103,295	13,099	6,511	9,106	14,496	146,507
Connecticut	29,214	12,089	1,641	6,205	2,797	51,946
Delaware	22,400	6,160	w	w	3,436	33,964
Florida	233,281	101,597	19,664	9,968	21,422	385,932
Georgia	165,353	20,838	13,264	5,944	60,130	265,529
Hawaii	w	w	w	w	4,786	51,993
Idaho	14,509	3,952	w	w	4,929	34,268
Illinois	209,041	648,550	22,858	26,450	429,905	1,336,804
Indiana	162,859	51,774	w	w	55,297	281,985
Iowa	177,950	69,402	w	w	130,347	384,621
Kansas	80,852	122,194	14,972	5,054	67,236	290,308
Kentucky	92,446	203,842	w	w	6,116	308,135
Louisiana	56,627	2,290,819	w	w	w	2,367,374
Maine	17,049	8,425	w	w	1,205	27,778
Md. & D.C.	45,119	w	w	6,273	8,060	78,531
Massachusetts	35,226	8,367	3,625	48,951	2,239	98,408
Michigan	146,298	22,100	w	w	27,981	216,690
Minnesota	131,737	21,993	9,348	1,324	67,227	231,629
Mississippi	103,297	24,959	w	w	30,742	176,356
Missouri	229,979	14,703	w	w	31,818	286,409

THE DATA ON THIS PAGE CANNOT BE RELATED TO SIMILAR DATA IN EDITIONS OF "MARKET FACTS" PRIOR TO 1979 BECAUSE OF CHANGES IN THE ENERGY INFORMATION ADMINISTRATION DATA REPORTING METHODS. SEE PAGE I.

(Continued from the preceding page)

SALES OF LP-GAS, BY STATES AND PRINCIPAL USES, 1981
(thousands of gallons)

	Residential and Commercial	Chemical and Industrial (1)	Internal Combustion	Utility Gas	All Other Uses (2)	Total (3)
Montana	24,878	1,880	3,278	5,847	4,047	39,930
Nebraska	64,805	4,851	13,124	—	73,676	156,456
Nevada	19,950	2,408	w	w	w	32,488
New Hampshire	28,980	5,694	631	6,955	203	42,463
New Jersey	46,731	270,755	12,630	5,143	3,384	338,643
New Mexico	40,534	54,560	7,831	w	w	121,314
New York	131,813	45,940	9,977	4,486	10,570	202,786
North Carolina	137,573	30,663	8,726	5,956	110,022	292,940
North Dakota	32,268	w	7,535	w	10,116	56,441
Ohio	137,388	281,963	w	w	1,125,896	1,568,279
Oklahoma	93,338	66,643	20,793	56,995	40,358	278,127
Oregon	31,078	w	8,782	w	5,772	48,966
Pennsylvania	90,290	167,839	14,672	10,879	14,983	298,663
Rhode Island	5,991	2,488	w	w	w	10,796
South Carolina	77,126	7,656	4,371	1,869	17,694	108,716
South Dakota	45,803	w	3,410	w	18,942	69,192
Tennessee	37,922	8,465	5,647	727	6,153	58,914
Texas	308,587	4,650,751	82,767	125,127	409,065	5,576,297
Utah	18,972	10,835	w	w	16,159	60,104
Vermont	18,816	w	w	w	362	24,324
Virginia	68,944	14,789	6,184	2,742	22,104	114,763
Washington	33,584	6,850	13,147	w	w	60,850
West Virginia	19,470	104,019	2,023	w	w	126,339
Wisconsin	133,640	10,078	11,972	183	35,900	191,773
Wyoming	35,547	11,708	7,400	10,404	13,791	78,850
Total	4,231,736	9,775,912	550,721	438,195	3,064,776	18,061,340

w - Data withheld to avoid disclosing reports for individual companies. These reports included in totals.
(1) Includes refinery fuel.
(2) Includes secondary recovery of petroleum, farm uses, and use as synthetic natural gas feedstock. See Page i.
(3) Includes Ethane - EIA data did not permit exclusion of ethane because of withheld data.

Source: Energy Information Administration

THE DATA ON THIS PAGE CANNOT BE RELATED TO SIMILAR DATA IN EDITIONS OF "MARKET FACTS" PRIOR TO 1979 BECAUSE OF CHANGES IN THE ENERGY INFORMATION ADMINISTRATION DATA REPORTING METHODS. SEE PAGE i.

SALES OF LP-GAS, BY STATE AND TYPE OF GAS, 1981

(thousands of gallons)

	Ethane	Propane	Butane	Butane-Propane Mixture	Total (1)
Alabama	w	177,481	w	410	179,477
Alaska	—	5,900	—	—	5,900
Arizona	—	49,528	w	w	49,563
Arkansas	—	145,588	w	w	146,331
California	w	467,553	100,939	w	666,488
Colorado	w	126,049	w	w	146,507
Connecticut	—	51,210	w	w	51,946
Delaware	—	33,964	—	—	33,964
Florida	67,296	317,930	w	w	385,932
Georgia	—	265,092	w	w	265,529
Hawaii	—	w	—	w	51,993
Idaho	—	34,268	—	—	34,268
Illinois	716,370	549,366	w	w	1,336,804
Indiana	w	280,993	w	w	281,985
Iowa	w	327,273	w	—	384,621
Kansas	59,938	225,469	3,823	1,078	290,308
Kentucky	185,672	121,002	w	w	308,135
Louisiana	1,471,685	688,164	173,512	34,013	2,367,374
Maine	—	27,778	—	—	27,778
Maryland & D.C.	—	w	—	w	78,531
Massachusetts	w	96,967	w	w	98,408
Michigan	w	216,547	w	—	216,690
Minnesota	w	229,401	656	w	231,629
Mississippi	—	173,897	830	1,629	176,356
Missouri	765	284,690	w	w	286,409

THE DATA ON THIS PAGE CANNOT BE RELATED TO SIMILAR DATA IN EDITIONS OF "MARKET FACTS" PRIOR TO 1979 BECAUSE OF CHANGES IN THE ENERGY INFORMATION ADMINISTRATION DATA REPORTING METHODS. SEE PAGE I.

(Continued from the preceding page)

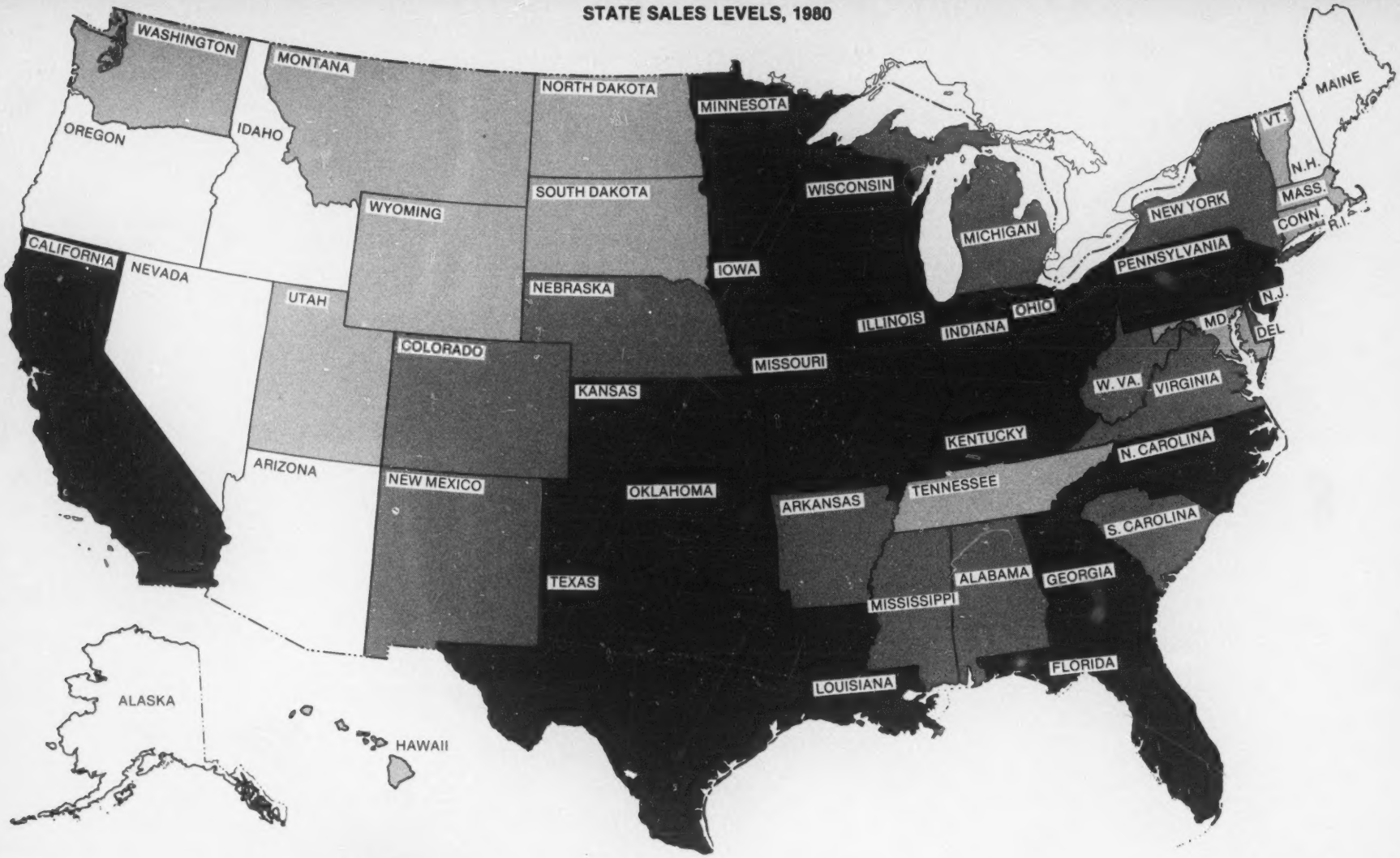
	Ethane	Propane	Butane	Butane-Propane Mixture	Total (1)
Montana	w	w	w	—	39,930
Nebraska	w	155,989	w	—	156,456
Nevada	—	32,488	—	—	32,488
New Hampshire	—	42,463	—	—	42,463
New Jersey	w	291,324	44,402	w	338,643
New Mexico	w	73,629	42,054	w	121,314
New York	—	194,401	w	w	202,786
North Carolina	—	292,561	w	w	292,940
North Dakota	w	w	—	—	56,441
Ohio	1,028,406	407,233	w	w	1,568,279
Oklahoma	49,071	175,421	5,895	47,740	278,127
Oregon	w	w	—	—	48,966
Pennsylvania	w	212,649	w	w	298,663
Rhode Island	—	w	w	—	10,796
South Carolina	—	w	—	w	108,716
South Dakota	w	69,168	w	w	69,192
Tennessee	—	w	w	w	58,914
Texas	2,184,522	2,654,132	679,173	58,470	5,576,297
Utah	—	w	w	—	60,104
Vermont	—	24,324	—	—	24,324
Virginia	—	114,763	—	—	114,763
Washington	—	60,825	w	w	60,850
West Virginia	w	w	—	—	126,339
Wisconsin	123	190,243	w	w	191,773
Wyoming	—	74,045	w	w	78,850
Total	6,008,839	10,500,566	1,250,885	301,050	18,061,340

w - Data withheld to avoid disclosing reports for individual companies. These reports included in totals.
(1) Includes ethane - EIA Data did not permit exclusion of ethane because of withheld data.

Source: Energy Information Administration

THE DATA ON THIS PAGE CANNOT BE RELATED TO SIMILAR DATA IN EDITIONS OF "MARKET FACTS" PRIOR TO 1979 BECAUSE OF CHANGES IN THE ENERGY INFORMATION ADMINISTRATION DATA REPORTING METHODS. SEE PAGE i.

STATE SALES LEVELS, 1980



250 Million Gals. or Over

100 — 250 Million

50 — 100 Million

Under 50 Million

THE DATA ON THIS PAGE CANNOT BE RELATED TO SIMILAR DATA IN EDITIONS OF "MARKET FACTS" PRIOR TO 1979 BECAUSE OF CHANGES IN THE ENERGY INFORMATION ADMINISTRATION DATA REPORTING METHODS. SEE PAGE I.

MONTHLY LP-GAS PRODUCTION
(thousands of gallons)

	1979	1980	1981
JANUARY	1,408,008	1,418,088	1,456,896
FEBRUARY	1,243,536	1,332,156	1,306,410
MARCH	1,384,782	1,418,592	1,418,886
APRIL	1,380,708	1,371,636	1,396,458
MAY	1,442,616	1,339,590	1,434,174
JUNE	1,397,844	1,346,016	1,368,444
JULY	1,457,316	1,366,722	1,363,866
AUGUST	1,491,378	1,399,902	1,376,424
SEPTEMBER	1,368,360	1,318,590	1,360,380
OCTOBER	1,454,040	1,390,788	1,432,578
NOVEMBER	1,363,866	1,360,044	1,397,256
DECEMBER	1,467,774	1,430,982	1,391,292
TOTAL	16,860,228	16,493,106	16,703,064

UNITED STATES 1973-81 LP-GAS IMPORTS, BY P.A.D. DISTRICTS

(thousands of gallons)

Petroleum Administration District	1973	1974	1975	1976	1977	1978	1979	1980	1981
I	359,058	250,784	285,171	258,762	439,442	216,613	386,533	311,927	373,800
II	773,514	812,549	759,805	921,421	1,239,965	976,513	1,514,546	1,395,441	1,010,310
III	382,872	391,752	228,697	284,466	390,386	152,157	358,789	304,035	473,634
IV	230,832	232,981	242,285	247,296	235,322	183,772	193,353	202,379	220,164
V	261,366	193,961	213,368	284,382	180,512	199,158	214,858	192,324	216,384
Total United States	**2,007,642**	**1,882,027**	**1,729,326**	**1,996,327**	**2,485,627**	**1,728,213**	**2,668,079**	**2,406,106**	**2,294,292**

Source: Energy Information Administration

CANADIAN LP-GAS SUPPLY AND DISPOSITION, 1981

(thousands of gallons)

PROPANE	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Gas Plant Production	393,844	345,294	334,179	370,696	1,444,013
Refinery Production	109,105	92,586	94,759	94,124	390,574
Imports	—	—	—	—	—
Inventory Changes	(2,498)	(137,886)	(98,194)	147,381	(91,197)
Total	500,451	299,994	330,744	612,201	1,743,390
Plant & Refinery Use	9,143	8,536	5,685	6,059	29,423
Solvent Flood	32,148	32,734	32,419	35,236	132,537
Petrochemical Industry	22,440	21,788	11,636	19,707	75,571
Residential, commercial, industrial	737,860	544,467	546,590	721,460	2,550,377
Export	269,379	148,327	177,870	364,864	960,440
Losses & Adjustments	(2,895)	(4,147)	6,019	(17,766)	(18,789)
Total	1,068,075	751,705	780,219	1,129,560	3,729,559

BUTANE	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Gas Plant Production	252,352	216,752	211,475	234,026	914,605
Refinery Production	97,265	124,838	139,815	95,559	457,477
Imports	—	—	—	—	—
Inventory Changes	(6,601)	(37,813)	(37,691)	96,400	14,295
Total	343,016	303,777	315,599	425,985	1,386,377
Plant & Refinery Use	137,120	119,612	120,617	162,871	540,220
Solvent Flood	22,124	22,951	22,988	25,129	93,192
Petrochemical Industry	22,387	24,517	21,165	19,670	87,739
Residential, commercial, industrial	385,462	297,344	330,949	333,623	1,347,378
Export	159,552	143,370	150,245	219,133	672,300
Losses & Adjustments	199	2,998	4,404	7,857	15,458
Total	726,844	610,792	650,368	768,283	2,756,287

Source: Statistics Canada

UNITED STATES LP-GAS IMPORTS, 1980-81
(thousands of gallons)

BY COUNTRY	1981	1980
Algeria	48,646	—
Australia	28,340	9,590
Brunei	—	—
Canada	1,604,741	1,886,201
Chile	—	—
Ecuador	—	—
France	12,991	—
Indonesia	40,035	35,195
Iran	—	—
Libya	—	6,084
Kuwait	—	—
Mexico	295,361	237,833
Neth. Antilles	8,043	4,650
Netherlands	—	—
Oman	—	—
Peru	—	—
Saudi Arabia	327,090	47,701
United Kingdom	9,483	24,746
Venezuela	98,527	147,460
Others	8,075	6,646
TOTAL	2,481,332	2,406,106

BY MONTH	1981	1980
January	306,315	276,128
February	240,862	220,106
March	157,604	236,258
April	136,735	100,160
May	144,576	158,015
June	167,406	170,272
July	179,274	173,873
August	193,703	157,503
September	199,659	148,387
October	327,852	221,047
November	190,616	230,180
December	236,730	314,177
TOTAL	2,481,332	2,406,106

R - Revised
Source: Bureau of the Census

UNITED STATES LP-GAS EXPORTS, 1980-81
(thousands of gallons)

BY COUNTRY	1981	1980
Canada	295,168	10,199
Japan	268	19
Mexico	276,109	259,860
Netherlands	12,311	292
Nigeria	—	—
Saudi Arabia	20	71
South Africa	163	240
West Germany	—	4
Others	5,527	3,801R
TOTAL	589,566	274,486

BY MONTH	1981	1980
January	23,424	25,682
February	21,707	28,113
March	20,878	26,569
April	28,807	21,329
May	20,973	19,437
June	26,414	18,073
July	18,617	18,963
August	190,559	18,627
September	20,925	20,129
October	93,339	27,978R
November	65,054	23,605
December	58,869	25,981
TOTAL	589,566	274,486

QUARTERLY TANK SHIPMENTS
1970-81

QUARTER	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
First	63,987	43,899	68,782	92,244	53,448	18,582	25,595	33,121	27,980	34,649	65,934R	71,944
Second	56,648	66,118	72,917	96,550	55,704	22,725	31,755	45,871	38,501	61,315	81,028R	83,830
Third	69,257	73,873	118,843	80,204	44,583	31,952	38,123	44,742	39,617	69,005	81,412R	85,869
Fourth	87,229	112,145	128,583	77,344	32,977	38,010	50,583	55,303	51,874	74,586	59,016R	64,241
Year Total	**277,121**	**296,035**	**389,125**	**346,342**	**186,082**	**111,269**	**146,056**	**179,037**	**157,972**	**239,555**	**287,390R**	**305,884**

Source: NLPGA

QUARTERLY REGULATOR SHIPMENTS
1970-81

QUARTER	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
First	360,205	371,097	407,180	527,971	282,770	328,038	510,865	707,029	828,603	1,089,877	1,048,099	806,859
Second	366,703	431,443	445,710	451,977	293,489	402,248	625,045	715,807	741,158	734,847	444,389	624,570
Third	365,703	413,539	413,953	353,307	312,676	312,834	493,122	334,550	463,217	424,764	334,575	482,716
Fourth	281,695	363,617	473,033	303,428	259,156	291,217	499,081	576,206	709,051	819,734	692,250	766,665
Year Total	**1,374,306**	**1,579,696**	**1,739,876**	**1,636,683**	**1,148,091**	**1,334,337**	**2,128,113**	**2,333,592**	**2,742,029**	**3,069,222**	**2,519,313**	**2,680,810**

Source: NLPGA

QUARTERLY CYLINDER PRODUCTION (1)
1970-81

QUARTER	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
First	366,198(3)	422,493	422,550	512,321	270,814	285,104	418,882	466,176	493,223	489,801	571,473	596,699
Second	259,704	226,659	474,584	505,581	331,861	399,605	438,318	518,409	533,156	477,376	280,987	647,249
Third	163,213	218,443	321,880	287,852	336,572	332,281	403,534	253,221	313,386	232,987	248,26[illegible]	336,218
Fourth	292,793	505,212	343,422	278,320	218,903	277,884	343,404	322,592	398,451	303,132	363,574	432,046
Year Total	**1,081,908**	**1,372,807**	**1,562,436**	**1,584,074**	**1,158,150**	**1,294,874**	**1,604,138**	**1,560,398**	**1,738,216**	**1,503,296**	**1,464,296**	**2,013,212**

R - Revised

(1) Authorized cylinders for LP-gas usage are 3, 3A, 3AA, 3B, 3E, 4A, 4B, 4BA, 4B240ET, 4BW240, 4B240X, 4B240FLW and 4E. However, only the readily identifiable LP-gas grouping of 4B, 4BA and 4BW240 is listed above. 4E is listed starting with 1970.

(2) Figures for October were inadvertently omitted, and are included in the figures reported for the first quarter of 1970.

(3) First quarter 1970 contains October 1969.

Source: Compressed Gas Association and NLPGA

LP-GAS CYLINDER PRODUCTION, BY SIZE(1)
1968-81

SIZE IN POUNDS (2)	5	10	20	33	40	60	100	200	300	All Other	TOTAL
1968	38,736	50,789	630,812	148,635	14,761	28,312	257,013	11,033	21,922	1,290	1,203,303
1969	67,516	32,431	481,211	115,439	10,779	8,290	192,456	5,714	16,124	—	929,960(3)
1970	124,231	40,823	492,911	132,277	8,777	11,139	194,371	12,399	29,670	35,310	1,081,908(4)
1971	53,202	80,947	819,120	150,346	7,411	18,111	196,743	4,388	27,416	15,123	1,372,807
1972	29,619	31,264	858,836	374,450	52,870	12,888	138,994	9,683	1,699	52,133	1,562,436
1973	36,375	33,997	902,107	340,085	60,188	21,559	144,553	10,373	1,737	33,100	1,584,074
1974	23,862	44,911	624,856	248,271	40,828	24,443	107,184	9,483	2,065	32,247	1,158,150
1975	13,958	36,373	721,714	266,214	52,583	39,733	81,469	8,608	881	73,341	1,294,874
1976	13,264	32,532	953,719	400,971	47,382	33,344	69,543	12,782	53	40,548	1,604,138
1977	27,682	50,880	902,726	381,742	56,826	19,189	61,362	9,742	—	50,249	1,560,398
1978	24,251	48,761	1,070,162	381,466	60,223	21,787	74,026	9,457	—	48,073	1,738,206
1979	15,167	31,856	1,023,259	225,703	51,898	16,877	76,517	6,139	—	55,880	1,503,296
1980	12,494	15,051	1,074,789	187,422	42,164	13,140	62,463	5,781	515	50,477	1,464,296
1981	13,885	21,637	1,605,808	212,109	41,828	8,688	48,767	2,662	572	56,256	2,012,212

LP-GAS CYLINDER PRODUCTION, BY SIZE(1)
1957-67

SIZE IN POUNDS	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967(5)
20	362,312	295,661	357,015	353,175	249,478	367,030	300,757	413,836	423,483	387,801	207,380
60	17,270	8,826	11,148	8,130	9,891	11,688	14,650	11,755	12,822	7,076	6,860
100	486,387	390,091	448,627	534,091	362,553	341,278	189,415	155,285	235,071	239,336	139,050
150-200	14,211	10,258	8,353	6,519	7,427	9,631	8,635	7,947	15,205	10,428	6,290
300-420	21,945	21,039	19,734	13,321	21,371	23,257	20,499	23,123	19,519	8,568	18,280
Unclassified	483,606	50,746	119,810	163,215	100,947	159,453	129,885	202,649	184,349	223,461	153,640
TOTALS	**1,385,731**	**776,621**	**964,687**	**1,078,451**	**751,667**	**912,337**	**663,841**	**814,595**	**890,449**	**876,670**	**531,500**

(1) Authorized cylinders for LP-Gas usage are 3, 3A, 3AA, 3B, 3E, 4A, 4B, 4BA, 4B240ET, 4BW240, 4B240X, 4B240FLW and 4E. However, only the readily identifiable LP-Gas grouping of 4B, 4BA, and 4BW240 is listed above. 4E is listed starting with 1970.

(2) For clarity and convenience, size classifications have been listed by the common cylinder sizes.

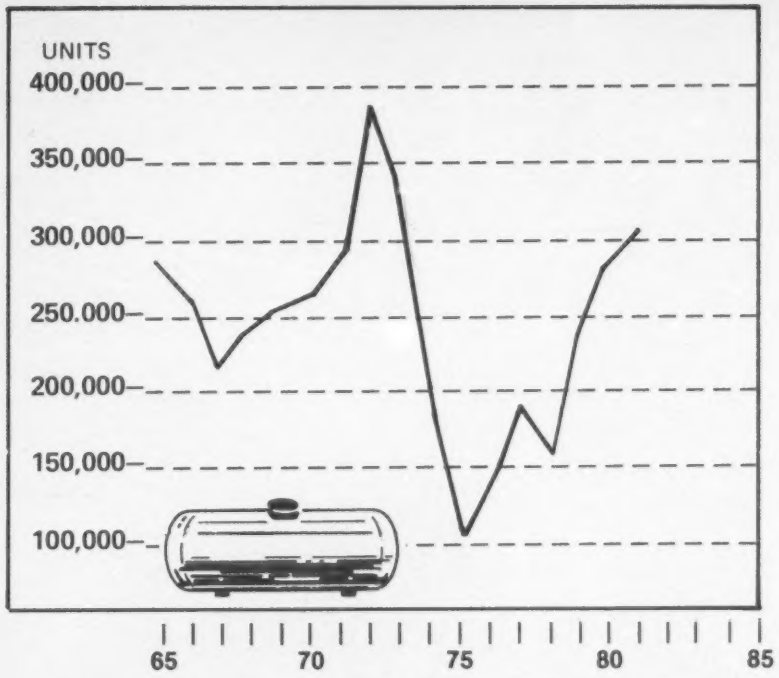
(3) Figures for October were inadvertently omitted, and are included in the figures reported for the first quarter of 1970.

(4) 1970 figures contain October 1969 figures.

(5) Experienced reporting difficulties.

Source: Compressed Gas Association and NLPGA

TANK SHIPMENTS

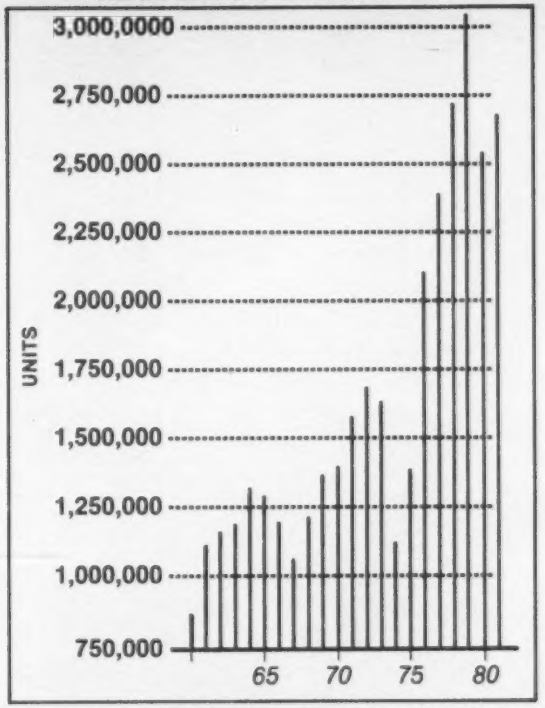


ANNUAL TANK SHIPMENTS 1956-81

1956	265,695
1957	207,252
1958	165,533
1959	186,302
1960	141,017
1961	148,524
1962	218,308
1963	242,600
1964	269,278
1965	282,350
1966	258,369
1967	223,451
1968	248,036
1969	261,904
1970	277,121
1971	296,035
1972	389,125
1973	346,342
1974	186,082
1975	111,269
1976	146,056
1977	179,037
1978	157,972
1979	239,555
1980	287,390R
1981	305,884

Source: NLPGA

REGULATOR SHIPMENTS



ANNUAL REGULATOR SHIPMENTS 1934-81

1934	39,231	1958	989,560
1935	44,275	1959	1,050,230
1936	85,661	1960	898,609
1937	113,916	1961	1,084,754
1938	110,860	1962	1,136,224
1939	225,510	1963	1,181,249
1940	340,404	1964	1,295,479
1941	368,244	1965	1,275,253
1942	114,855	1966	1,203,690
1943	40,097	1967	1,065,472
1944	106,060	1968	1,245,876
1945	259,002	1969	1,357,168
1946	1,012,045	1970	1,374,306
1947	1,006,064	1971	1,579,696
1948	869,418	1972	1,739,876
1949	783,711	1973	1,636,683
1950	1,259,653	1974	1,148,091
1951	1,146,071	1975	1,334,337
1952	909,289	1976	2,128,113
1953	949,534	1977	2,333,592
1954	906,178	1978	2,742,029
1955	1,175,253	1979	3,069,222
1956	1,095,063	1980	2,519,313
1957	921,416	1981	2,680,810

Source: NLPGA

ANNUAL TANK SHIPMENTS, BY SIZES, 1953-81
SIZE IN GALLONS (Water Capacity)

YEAR	0-399*	Engine Fuel	400-599	600-1099	Over 1099	Transport & Delivery** 1000-12000	TOTALS
1953	108,196		71,362	25,575	43,877	—	249,010
1954	89,313		83,103	22,262	15,050	—	209,728
1955	122,726		98,372	21,945	18,534	—	261,577
1956	139,433		98,288	26,472	1,502	—	265,695
1957	117,975		71,974	16,069	1,234	—	207,252
1958	83,321		66,617	14,202	1,393	—	165,533
1959	102,779		65,069	16,996	1,458	—	186,302
1960	80,387		47,918	11,499	1,213	—	141,017
1961	85,918		50,449	10,923	1,234	—	148,524
1962	125,209		75,096	15,881	2,122	—	218,308
1963	126,041		90,157	22,170	4,232	—	242,600
1964	141,746		104,584	21,279	1,669	—	269,278
1965	113,285	21,922	116,462	28,306	1,451	924	282,350
1966	104,477	22,815	103,858	24,833	1,364	1,022	258,369
1967	92,881	17,645	88,819	21,671	1,298	1,136	223,450
1968	115,168	20,185	84,285	25,902	1,332	1,164	248,036
1969	120,431	18,577	93,905	26,570	887	1,534	261,904
1970	116,473	24,988	105,399	27,638	1,069	1,552	277,121
1971	122,032	32,266	118,996	29,305	1,080	1,356	296,035
1972	166,712	23,284	154,963	40,747	2,082	1,337	389,125
1973	138,337	27,058	114,319	60,913	4,301	1,414	346,342
1974	60,710	22,881	63,241	34,554	3,483	1,213	186,082
1975	40,375	15,398	36,362	16,310	2,054	770	111,269
1976	61,752	9,692	52,067	19,959	1,852	734	146,056
1977	81,897	11,340	53,121	27,636	3,653	1,390	179,037
1978	76,170	7,389	48,961	20,344	1,296	812	157,972
1979	84,986	76,228	55,773	20,922	1,048	598	239,555
1980	66,231	172,136	32,899	14,588	912	624	287,390
1981	51,608	216,652	24,139	12,069	1,006	410	305,884

**Includes engine fuel tanks through 1964.*

***Not reported separately prior to 1965. See Page 22 for breakdown.*

Source: NLPGA

CARBURETOR SALES*, BY APPLICATION, 1970-81

APPLICATION	UNIT SALES 1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Farm Tractors	8,258	6,561	4,660	6,595	10,837	3,035	3,216	2,883	2,111	1,897	643	651
Industrial Trucks	66,899	63,998	65,829	97,729	92,481	56,869	65,369	80,110	89,959	139,817	113,259	100,007
Automobiles*	13,431	12,711	11,682	20,539	29,789	9,178	8,591	8,881	9,440	17,117	34,339	26,562
Trucks	28,403	28,371	27,249	55,079	54,720	30,872	32,793	30,527	25,702	79,156	227,046	198,776
Stationary Engines	13,583	9,704	8,252	10,409	14,923	9,678	11,867	11,526	11,157	10,981	14,740	20,378
Miscellaneous +	7,228	5,685	3,965	1,460	1,305	1,159	375	300	200	305	440	5,934
Buses	521	597	103	100	240	380	1,346	1,458	795	457	508	2,199
TOTAL SALES	**138,323**	**127,627**	**121,740**	**191,911**	**204,295**	**111,171**	**123,557**	**135,685**	**139,364**	**249,730**	**390,975**	**354,507**

**Includes sales to original equipment manufacturers and after market sales for the purpose of conversion or replacement with the exception of automobile types which represent only after-market sales.*

Source: NLPGA and Bureau of the Census.

LP-GAS TANK TRUCK PRODUCTION*
1963-81

1963	438
1964	451
1965	310
1966	357
1967	307
1968	218
1969	221
1970	312
1971	302
1972	326
1973	384
1974	492
1975	178
1976	323
1977	800(R)
1978	431(R)
1979	177
1980	188
1981	76

**From 1965 to date tank truck data is for trucks ranging in size from 7,500 to 12,000 water gallon capacity.*
(R) - Revised

Source: NLPGA and Bureau of the Census

SHIPMENTS OF LP-GAS DELIVERY AND TRANSPORT TRUCKS
1980-81

SIZE	1981	1980
1,000 — 1,399 Gallons	0	1
1,400 — 1,999 Gallons	0	0
2,000 — 2,599 Gallons	131	116
2,600 — 3,499 Gallons	192	294
3,500 — 7,499 Gallons	11	26
7,500 — 12,000 Gallons	76	188
TOTAL	**410**	**625**

Source: NLPGA

AGRICULTURAL CROP DRYER SHIPMENTS
1966-80

GRAIN, HAY AND SEED DRYERS

YEAR	Heated Types*	Unheated Air Types	Totals
1966	14,904	2,535	17,439
1967	15,278	—	15,278
1968	17,318	925	18,243
1969	10,103	1,519	11,622
1970	7,153	2,019	9,172
1971	13,245	2,279	15,524
1972	16,456	3,358	19,814
1973	23,364	12,140	35,504
1974	34,781(R)	15,936(R)	50,717(R)
1975	24,540(R)	19,586(R)	44,126(R)
1976	29,904(R)	24,997(R)	54,901
1977	41,427(R)	45,668(R)	87,095(R)
1978	39,951(R)	59,912(R)	99,863(R)
1979	32,308(R)	48,687(R)	80,995(R)
1980	23,130	36,823	59,953

**Consist of batch type, continuous flow, heated air and supplemental heater units estimated by manufacturers to be 90% to 95% LP-Gas fueled.*

(R) Revised

Source: Bureau of the Census

LP-GAS APPLICATIONS*

Residential & Commercial
- Kitchen Ranges
- Barbecue Grills
- Water Heaters
- Clothes Dryers
- Central Heating Systems
- Central Air Conditioning Systems
- Space Heaters
- Patio and Yard Lamps
- Patio and Pool Deck Heaters
- Recreation: Camp Cookers, Heaters, Lights, Refrigeration
- Infra-Red Heaters
- Laundry Equipment
- Greenhouses
- Incinerators
- Roofing Kettles
- Street Pavers

Internal Combustion
- Farm Tractors
- Industrial Lift Trucks
- Industrial Sweepers
- Stationary Engines
- Bus and Truck
- Automobile
- Portable Engines
- Refrigeration

Industrial
- Standby Fuel
- Flame Cutters
- Metallurgical Furnaces
- Industrial Dryers
- Electric Generation
- Construction Heaters
- Refinery Fuel

Utility Gas
- Propane-Air Systems
- Propane Enrichment

Chemical
- Raw Materials
- Solvents

Synthetic Rubber

Secondary Recovery of Petroleum

Miscellaneous
- Crop Dryers
- Flame Cultivation
- Weed and Insect Control
- Tobacco Curers
- Poultry Brooders
- Stock Tank Heaters
- Pig Farrowers

*Bureau of Mines Classifications

GAS APPLIANCE SHIPMENTS
1953-81

	Domestic Ranges	Water Heaters	Warm Air Furnaces	Boilers	Conversion Burners	Direct Htg. Eqpt.	Floor Furnaces	Wall Furnaces	Clothes Dryer	Gas Grills
1953	2,184,400	2,182,700	503,600	72,000	213,100	1,674,315	168,500	310,410	158,547	
1954	2,023,200	2,360,500	678,000	80,200	224,400	951,698	144,120	358,043	236,148	
1955	2,334,800	2,748,200	874,400	90,100	209,100	1,135,720	191,555	383,907	368,206	
1956	2,177,400	2,762,100	812,600	96,300	186,900	1,089,304	98,270	301,962	434,365*	
1957	1,968,600	2,532,300	702,600	105,400	163,500	931,982	76,031	243,559	392,085	
1958	1,884,400	2,673,400	853,700	123,200	142,000	1,485,000	97,500	389,000	378,700	
1959	2,012,500	2,953,600	1,053,400	159,600	156,200	1,446,300	97,300	449,500	476,500	
1960	1,814,300	2,720,600	900,000	153,200	131,500	1,210,700	86,700	366,000	431,500	
1961	1,830,000	2,731,700	929,400	168,000	115,700	1,066,600	76,900	390,300	411,700	
1962	1,981,400	2,876,000	1,008,500	175,000	104,200	1,160,800	77,800	437,300	474,400	
1963	2,072,300	2,597,400	1,101,900	184,000	108,400	1,323,800	77,200	448,100	534,700	
1964	2,170,400	2,724,070	1,185,700	199,600	100,800	1,190,000	73,080	482,400	632,200	
1965	2,266,400	2,736,750	1,237,500	200,300	92,900	994,000	70,820	430,100	710,000	
1966	2,162,600	2,636,440	1,212,900	186,500	92,800	1,033,800	67,200	447,600	751,200	
1967	2,123,000	2,554,510	1,145,700	173,800	84,600	920,000	58,310	412,800	828,900	
1968	2,285,900	2,756,300	1,428,100	186,800	79,200	973,700	64,910	490,300	876,000	
1969	2,471,100	2,742,430	1,546,000	175,800	76,900	1,027,900	66,900	509,900	905,400	
1970	2,361,700	2,785,210	1,471,200	163,800	65,800	928,900	55,800	489,200	851,700	
1971	2,549,300	3,088,480	1,795,200	157,200	52,900	782,600	51,800	560,000	847,000	
1972	2,661,100	3,162,820	2,066,200	155,700	39,700	708,300	42,880	719,660	936,100	
1973	2,481,400	3,080,440	1,719,500	146,700	43,100	678,000	41,560	610,000	925,700	
1974	1,950,100	2,568,650	1,476,300	122,600	88,900	488,400	37,570	371,610	738,900	
1975	1,618,400	2,645,110	1,185,800	88,100	38,800	332,000	33,430	401,600	671,800	
1976	1,823,500	3,112,130	1,554,400	112,600	26,200	306,400	24,000	499,430	707,500	
1977	1,753,200	3,158,100	1,509,000	112,900	N/A	193,300	23,890	475,330	735,700	722,300
1978	1,794,200	2,921,052	1,636,100	125,900	N/A	174,900	18,070	513,900	757,000	910,000
1979	1,798,600	2,887,275	1,862,600	221,300	N/A	192,700	15,560	349,930	756,700	1,310,000
1980	1,662,400	3,037,505	1,445,700	293,300	N/A	197,690	12,240	284,690	682,200	1,235,000
1981	1,495,700	2,785,207	1,416,700	161,900	N/A	133,034	10,552	242,831	639,000	1,526,700

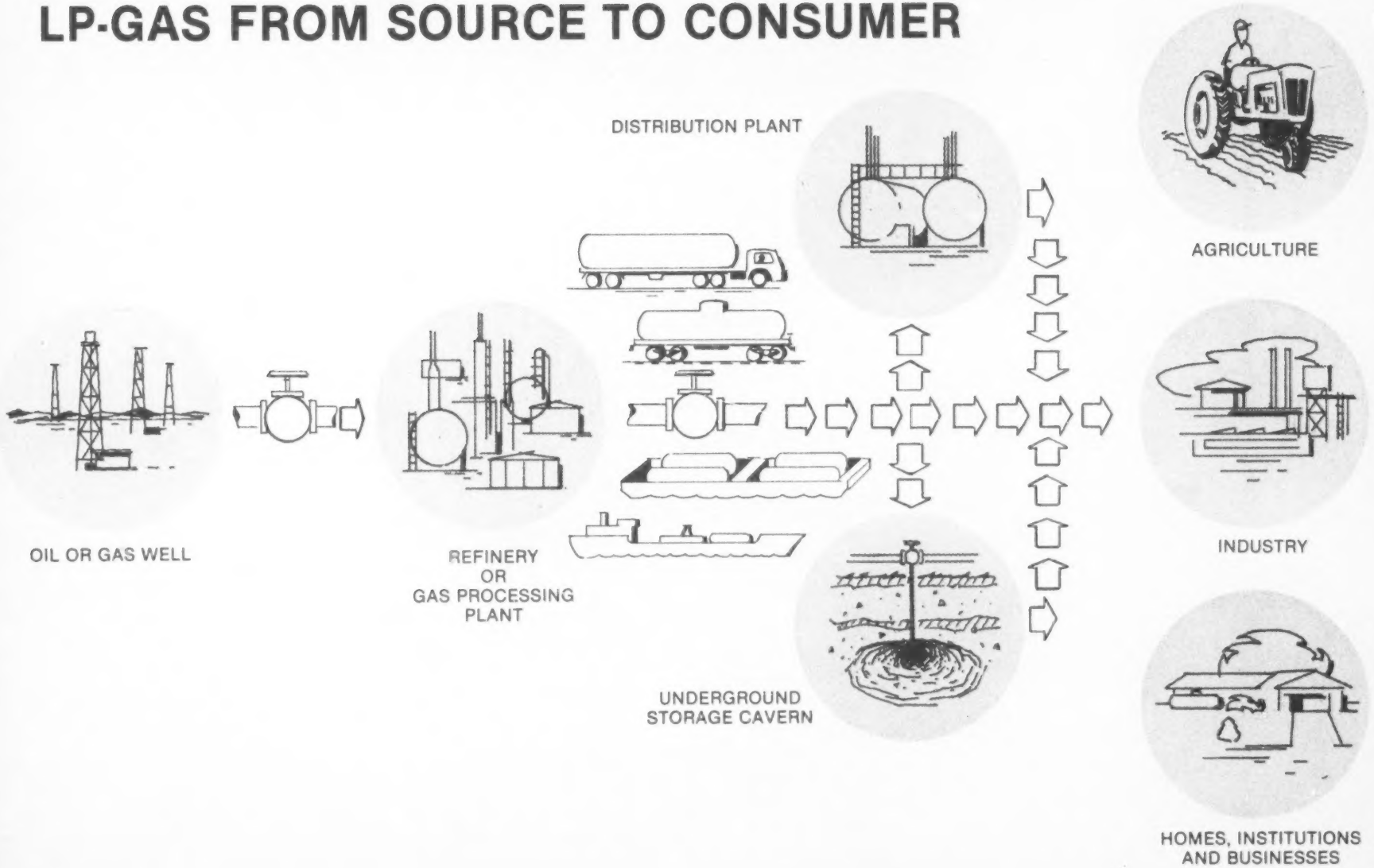
N/A - Not Available

**LP-Gas and city gas combined.*

***Includes combination washer-dryers in 1956 only.*

Source: Gas Appliance Manufacturers Association

LP-GAS FROM SOURCE TO CONSUMER



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1982 LP-GAS MARKET FACTS

NATIONAL LP-GAS ASSOCIATION

PRODUCTION / TRANSPORTATION / STORAGE / IMPORT / EXPORT / SALES / EQUIPMENT / UTILIZATION

1982 LP-GAS INDUSTRY MARKET FACTS

DEVELOPED BY STATISTICAL AND MARKET RESEARCH COMMITTEE
NATIONAL LP-GAS ASSOCIATION
Robert Nicholson, Chairman

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ABOUT THIS REPORT

The LP-gas production and sales data in this report are extracted form reports published by the Energy Information Administration (EIA), U.S. Department of Energy. The production data are published in EIA-0109 "Petroleum Supply Monthly" from information reported to EIA by companies operating petroleum refineries and natural gas liquids processing plants. The sales data are collected by EIA using Form EIA-174 "Sales of Liquefied Petroleum Gases and Ethane". Approximately 3,400 suppliers of ethane and liquefied petroleum gases (LP-gas) report to EIA on this form. Propane, butane, butane-propane and isobutane mixtures comprise the liquefied petroleum gases in this EIA report. The suppliers reporting these data include refiners, operators of natural gas processing plants, LP-gas dealers and importers and constitute the census of companies that sell LP-gas.

Prior to 1979, EIA expanded data received in a survey of LP-gas marketers to equal the available domestic production of LP-gas. Beginning in 1979, however, EIA assumed that the LP-gas sales reports received accounted for all of the LP-gas sold. Since EIA received data from less than 3,400 marketers in 1979, 1980, 1981, and 1982, and over 2.0 billion gallons more of LP-gas was reported produced than sold in each of 1979, 1980, 1981, and 1982, it is concluded that the 1982 LP-gas sales data reported is not comparable to sales data prior to 1979. Therefore, to avoid confusion, sales data from 1978 and previous annual issues of LP-Gas Market Facts have been excluded form this report.

In the 1982 report of LP-gas sales, EIA recognized this difference between reported LP-gas sales and LP-gas supply. They believe the difference is (1) because some liquified gases imported by end users for their own consumption are included in report of product supply statistics, but are not always reported in sales surveys, and (2) because of under-reporting of consumption by producer (within company use).

In addition, EIA has included 7.5 billion gallons of ethane used exclusively as a petro-chemical feedstock in this report of LP-gas sales. EIA also withheld data from the detailed report for a number of entries where publication of the specific data would have released confidential information regarding the sales of the limited number of companies submitting these reports. These data have been included in the respective totals, however. Such data handling is denoted by "w" as appropriate.

Extensive revisions were made to the LP-gas production (supply portion of this report, both for 1982 data and for that from previous years. The method previously used to determine LP-gas supply was found to be incomplete.

Distribution

One copy available to each member as a service of the National LP-Gas Association. Additional copies to members $3.00 each. Copies to NLPGA non-members $6.00 each. Order from National LP-Gas Association, 1301 W. 22nd Street, Oak Brook, Illinois 60521.

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LP-GAS, THE INDUSTRY IN BRIEF

WHAT IS LP-GAS?

The "LP" in LP-gas stands for Liquefied Petroleum, and it simply means that the gas is derived from petroleum products and sold in compressed, or liquefied form. The makeup of the gas can vary, but the most common forms include propane, butane, and propane/butane mixes. Propane is by far the predominant type of fuel. Liquefying the gas provides a highly efficient and safe method of storing and transporting the product: the fluid occupies a mere 1/270th the space of the gas, which returns to its natural state when released to the atmosphere under normal pressure. Energy content of propane, as measured in British Thermal Units, is 91,500 BTU per gallon, or about 2,500 per cubic foot.

In the United States, about 65% of LP-gas is extracted from natural gas, while 35% is refined from crude oil. Like natural gas, LP-gas is odorless, and an artificial smell is added. It is also heavier than air, clean-burning, and combustion produces negligible pollutants.

USES OF LP-GAS

This fuel is one of the country's most versatile sources of energy. It is both portable and easy to regulate. Its most common use is as a straight source of heat. It cooks food, warms homes, dries clothes, heats water, and barbecues for homeowners located in suburban, small town, and rural areas. It can also power refrigerators and air conditioners. Portable LP-gas brings city comfort to families everywhere. It can do anything in the wilderness that it can do at home, and LP-gas has long been a major comfort for campers.

LP-gas is also a staple on farms, where it's used for crop drying, flame weeding, tobacco curing, defoliation, poultry and pig brooding, stock tank heating, and frost protection. It also powers trucks, pumps, standby generators, and other farm equipment.

Commercial establishments, such as hotels, motels, and restaurants, use LP-gas much like the homeowner. Industry relies on it for brazing, soldering, cutting, heat-treating, annealing, vulcanizing, and many other uses.

As an engine fuel, its minimal emissions allow it to be used indoors, which explains its wide popularity in fork-lift trucks. This same feature makes it a desirable fuel in congested areas, as the many fleets of city buses, taxis and delivery trucks will attest. Gasoline engines convert easily to LP-gas, efficiency improves, and engine life is increased.

THE MARKET

LP-gas ranks fourth in supplying the nation's energy needs. The industry serves about eighteen million customers, including homes, farms, individuals, businesses, and government groups. LP-gas is essentially a rural fuel, and roughly 1½ million farms, or about half of them, depend on the fuel for a variety of uses. A rough calculation of the market shows approximately 60 million people dependent on LP-gas for one use or another.

THE INDUSTRY'S ASSETS

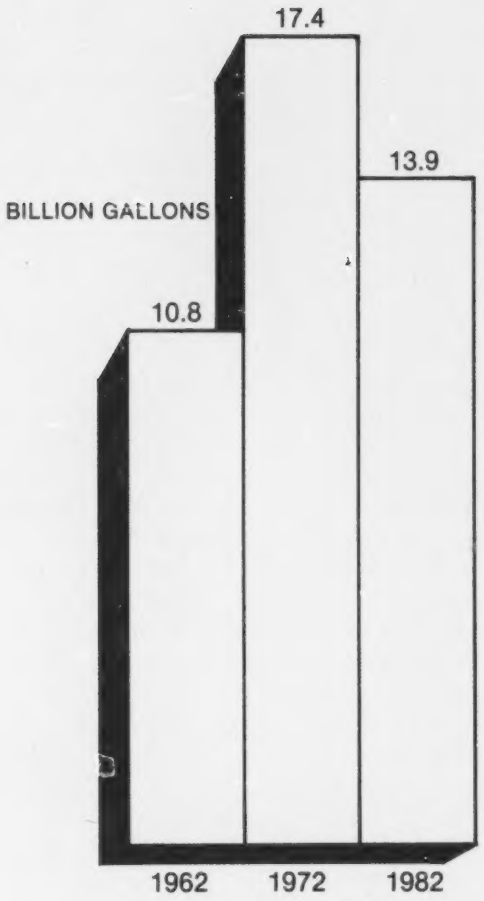
The distribution of LP-gas requires the effort of more than 86,000 people in the United States. Capital investment in excess of $7.5 billion includes 70,000 miles of cross-country pipelines, 25,000 transport and delivery trucks, 22,000 railroad tank cars, 250 primary storage facilities with capacity of seven billion gallons, a fleet of 370 barges and tankers, 8,000 bulk storage and distribution points, and 25,000 retail outlets.

Behind this vast network is the multi-billion dollar complex of petroleum refining and natural gas producing industries operated by LP-gas suppliers. More than 200 oil and gas companies produce LP-gas and distribute it in a number of ways. Some of them maintain their own LP-gas retail outlets, some sell on contract to established LP-gas marketers, and some of the gas finds its way to the open market through brokers.

WHAT IS NLPGA?

The National LP-Gas Association is a trade association offering a full range of services, and represents all segments of the liquefied petroleum gas industry. Included are producers of LP-gas, wholesale and retail marketers, gas appliance and equipment manufacturers and distributors, tank and cylinder fabricators, transport firms and others. NLPGA has nearly 4,000 members throughout the U.S. and 29 other countries. Forty-six regional and state LP-gas associations are affiliated with the national organization.

LP-GAS PRODUCTION



TOTAL ANNUAL PRODUCTION

YEAR	GALLONS*
1955	6,198,024,000
1956	6,784,470,000
1957	6,947,640,000
1958	7,463,232,000
1959	8,926,764,000
1960	9,546,222,000
1961	9,824,136,000
1962	10,807,230,000
1963	9,951,018,000
1964	12,371,310,000
1965	12,898,746,000
1966	13,605,312,000
1967	12,656,868,000
1968	12,467,406,000
1969	15,683,220,000
1970	15,248,478,000
1971	15,498,336,000
1972	17,373,258,000
1973	17,191,356,000
1974	16,317,126,000
1975	15,199,674,000
1976	16,013,046,000
1977	15,487,500,000
1978	15,023,064,000
1979	16,431,660,000
1980	14,968,884,000
1981	14,395,248,000
1982	13,915,272,000

**Figures prior to 1966 include an undisclosed amount of ethane production.*

Source: Energy Information Administration

PRODUCTION OF LP-GAS 1982
(thousands of gallons)

	Supply				Disposition			
Month	Natural Gas Liquids	Liquified Refinery Gases	Imports*	Stock Withdrawals or (Additions)	Refinery Inputs	Exports*	LP-Gas Available to Market	Ending* Stock
January	1,076,292	299,082	254,142	603,330	498,036	87,822	1,646,988	4,615,434
February	881,118	263,760	195,720	274,134	374,304	59,598	1,180,830	3,869,880
March	1,022,826	322,224	150,780	301,056	367,752	96,978	1,332,114	3,580,164
April	949,578	322,308	145,068	92,652	316,386	96,516	1,096,620	3,487,512
May	1,046,304	363,006	149,982	(189,504)	298,368	56,196	1,015,224	3,677,058
June	957,474	366,366	175,896	(189,042)	326,256	134,064	850,416	3,866,058
July	934,248	386,694	144,186	(64,470)	324,786	48,426	1,027,488	3,930,486
August	988,554	362,334	130,452	(114,912)	327,894	78,792	959,700	4,045,398
September	948,864	385,182	241,542	(35,532)	344,316	106,596	1,089,102	4,081,056
October	987,084	328,944	202,104	133,392	396,858	106,092	1,148,616	3,947,622
November	925,680	324,324	257,754	290,640	456,288	46,830	1,295,238	3,656,898
December	1,005,690	352,212	160,314	340,914	513,114	73,080	1,272,936	3,316,068
TOTAL	**11,723,712**	**4,076,436**	**2,207,856**	**1,442,658**	**4,544,358**	**991,032**	**13,915,272**	**3,316,068**

*Contains error undetected by EIA.

Source: Energy Information Administration

ANNUAL PRODUCTION, BY TYPE OF GAS, 1967-82
(thousands of gallons)

	PROPANE	BUTANE	BUTANE-PROPANE MIXTURE	ISO-BUTANE	TOTAL PRODUCTION	DAILY AVERAGE PRODUCTION
1967	9,478,644	2,400,678	720,132	56,574	12,656,028	34,674
1968	10,637,424	2,617,734	582,330	47,250	13,884,738	38,040
1969	12,019,014	3,252,102	339,822	72,282	15,683,220	42,968
1970	11,891,040	3,058,734	235,788	62,916	15,248,478	41,777
1971	12,168,156	2,964,024	289,506	76,650	15,498,336	42,461
1972	13,726,272	3,245,004	314,328	87,654	17,373,258	47,598
1973	13,364,232	3,433,164	286,860	107,100	17,191,356	47,100
1974	12,728,562	3,147,480	303,786	137,298	16,317,126	44,704
1975	12,006,834	2,825,172	274,218	93,450	15,196,674	41,635
1976	12,761,532	2,886,156	254,562	110,796	16,013,046	43,871
1977	12,592,566	2,341,122	451,584	102,228	15,487,500	42,432
1978	11,922,078	2,471,826	537,558	91,602	15,023,064	41,159
1979	13,053,978	2,885,274	435,624	56,784	16,431,660	45,018
1980	11,590,698	2,857,050	480,522	40,614	14,968,884	41,011
1981	11,848,116	2,056,656	441,462	49,014	14,395,248	39,439
1982	12,227,292	1,549,170	139,482	(672)	13,915,272	38,124

Source: Energy Information Administration

MONTHLY PRODUCTION, BY TYPE OF GAS*, 1982
(thousands of gallons)

	PROPANE	BUTANE	B-P MIX	ISO-BUTANE	TOTAL
JANUARY	1,452,570	154,308	39,774	336	1,646,988
FEBRUARY	1,033,830	157,962	(11,046)	84	1,180,830
MARCH	1,051,638	258,930	21,546	0	1,332,114
APRIL	920,850	164,388	11,592	(210)	1,096,620
MAY	875,994	130,578	8,610	42	1,015,224
JUNE	812,280	43,680	(4,956)	(588)	850,416
JULY	930,174	85,176	15,078	(2,940)	1,027,488
AUGUST	911,484	61,740	(12,432)	(1,092)	959,700
SEPTEMBER	942,858	83,748	63,084	(588)	1,089,102
OCTOBER	1,023,162	139,356	(18,606)	4,704	1,148,616
NOVEMBER	1,166,424	108,654	21,420	(1,260)	1,295,238
DECEMBER	1,106,028	160,650	5,418	840	1,272,936
TOTAL	**12,227,292**	**1,549,170**	**139,482**	**(672)**	**13,915,272**

**Propane includes propylene; butane includes butylenes.*
Source: Energy Information Administration

LP-GAS UNDERGROUND BULK STORAGE CAPACITIES, U.S., 1983-1981

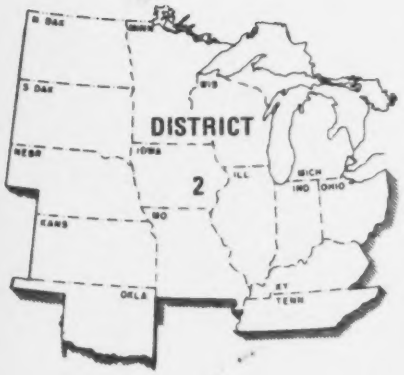
(thousands of gallons)

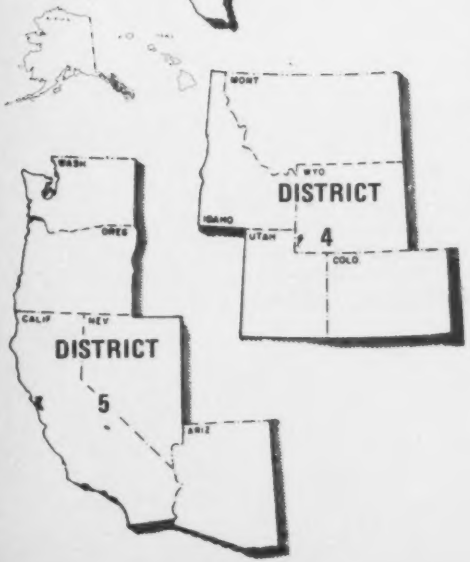
	1983				1981			
	Propane	Butanes	Other[1]	Total	Propane	Butanes	Other[1]	Total
Alabama	15,330	—	—	15,330	7,518	—	—	7,518
Alaska	—	—	—	—	—	—	—	—
Arizona	210,000	67,200	—	227,200	103,992	92,988	—	196,980
Arkansas	—	—	—	—	—	—	—	—
California	—	—	—	—	—	—	—	—
Colorado	—	—	—	—	—	—	—	—
Connecticut	—	—	—	—	—	—	—	—
Delaware	—	—	—	—	—	—	—	—
Florida	—	—	—	—	—	—	—	—
Georgia	10,920	—	—	10,920	10,920	—	—	10,920
Hawaii	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—
Illinois	82,446	45,780	—	128,226	80,430	45,780	1,806	128,016
Indiana	34,902	45,064	—	79,966	41,244	26,376	—	67,620
Iowa	22,470	2,100	—	24,570	22,470	2,100	—	24,570
Kansas	2,143,042	587,622	18,060	2,748,774	2,091,306	515,340	37,506	2,644,152
Kentucky	25,074	3,360	1,050	29,484	25,074	3,360	1,050	29,484
Louisiana	974,736	763,854	918,120	2,656,710	895,860	732,102	1,150,128	2,778,090
Maine	—	—	—	—	—	—	—	—
Md. & D.C.	6,300	—	—	6,300	6,300	—	—	6,300
Massachusetts	—	—	—	—	—	—	—	—
Michigan	240,660	72,282	—	312,942	193,956	49,434	11,970	255,360
Minnesota	13,860	—	—	13,860	13,860	—	—	13,860
Mississippi	855,162	89,250	—	944,412	915,096	—	—	915,096
Missouri	44,982	—	—	44,982	44,394	—	—	44,394

(Continued from the preceding page)

	1983				1981			
	Propane	Butanes	Other[1]	Total	Propane	Butanes	Other[1]	Total
Montana	—	—	—	—	—	—	—	—
Nebraska	31,710	—	—	31,710	31,710	—	—	31,710
Nevada	—	—	—	—	—	—	—	—
New Hampshire	—	—	—	—	—	—	—	—
New Jersey	9,660	10,500	—	20,160	9,660	10,500	—	20,160
New Mexico	30,618	2,646	—	33,264	30,324	2,016	—	32,340
New York	212,688	—	—	212,688	210,210	—	—	210,210
North Carolina	—	—	—	—	—	—	—	—
North Dakota	—	—	—	—	—	—	—	—
Ohio	255,822	44,226	6,426	306,474	281,022	44,226	6,426	331,674
Oklahoma	87,528	10,752	10,752	109,032	42,756	15,960	14,868	73,584
Oregon	—	—	—	—	—	—	—	—
Pennsylvania	44,100	32,130	19,950	96,180	48,720	32,130	19,950	100,800
Rhode Island	—	—	—	—	—	—	—	—
South Carolina	80,010	—	—	80,010	80,010	—	—	80,010
South Dakota	—	—	—	—	—	—	—	—
Tennessee	—	—	—	—	—	—	—	—
Texas	2,589,888	2,868,432	1,843,800	7,302,120	2,135,280	1,616,874	1,935,906	5,688,060
Utah	8,400	—	—	8,400	5,280	—	—	5,280
Vermont	—	—	—	—	—	—	—	—
Virginia	—	—	11,718	11,718	—	—	12,684	12,684
Washington	—	—	—	—	—	—	—	—
West Virginia	21,000	—	—	21,000	21,000	—	—	21,000
Wisconsin	—	—	—	—	—	—	—	—
Wyoming	—	—	—	—	—	—	—	—
TOTAL CAPACITY	**8,051,358**	**4,645,198**	**2,829,876**	**15,526,432**	**7,348,392**	**3,189,186**	**3,192,294**	**13,729,872**

[1]Other includes B-P mixes and LP-Gas not otherwise identified.
Source: Gas Processors Association





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1982 SALES OF LP-GAS, BY P.A.D. DISTRICTS (1)
(thousands of gallons)

	DISTRICTS					
	1	2	3	4	5	TOTAL
PRODUCT						
Ethane	191,941	1,858,001	5,470,914	1,000	80	7,521,936
Propane	1,847,582	3,454,522	3,994,115	334,595	719,904	10,350,718
Butane	38,959	82,576	1,110,103	61,123	76,023	1,368,784
Butane - Propane Mixture	3,051	68,508	63,194	1	65,297	200,051
Total	2,081,533	5,463,607	10,638,326	396,719	861,304	19,441,489

(1) Includes Ethane - EIA Report did not permit exclusion of ethane because of withheld data.

Source: Energy Information Administration

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SALES OF LP-GAS, BY PRINCIPAL USES
(thousands of gallons)

Year	Residential and Commercial	Chemical and Synthetic Rubber (4)	Internal Combustion	Industrial (1)	Utility Gas	All Other Uses (2)	TOTAL (3)
1979	4,764,402R	8,159,835	443,732R	2,105,386R	527,917R	3,200,370R	19,201,642R
1980	4,372,576	7,807,957	508,011	2,217,409	594,403	3,103,526	18,603,882
1981	4,216,930R	12,521,803R	553,909R		446,462R	3,064,226R	20,803,379R
1982	4,047,120	11,774,144	643,946		318,397	2,657,882	19,441,484

R - Revised
(1) Includes Refinery Fuel.
(2) An undetermined amount of LP-gas for farm household and internal combustion engine fuel uses was reported in previous years under "Residential and Commercial" and "Internal Combustion", respectively.
(3) Includes ethane - EIA data did not permit exclusion of ethane because of withheld data.
(4) Includes Industrial and Refinery Fuel Beginning 1981.

Source: Energy Information Administration

THE DATA ON THIS PAGE CANNOT BE RELATED TO SIMILAR DATA IN EDITIONS OF "MARKET FACTS" PRIOR TO 1979 BECAUSE OF CHANGES IN THE ENERGY INFORMATION ADMINISTRATION DATA REPORTING METHODS. SEE PAGE i.

SALES OF LP-GAS BY STATES (1)
(thousands of gallons)

	1982	1981	1980	1979
Alabama	157,161	177,840R	171,182	190,234R
Alaska	7,544	5,900	6,602	6,359
Arizona	58,800	49,706R	54,967	57,482R
Arkansas	145,002	146,331	167,662	166,570R
California	577,974	665,859R	664,045	765,030
Colorado	164,063	144,468R	133,872	129,048R
Connecticut	50,367	51,946	51,909	48,575
Delaware	31,418	33,964	110,647	235,552
Florida	315,672	385,932	370,742	286,783R
Georgia	226,170	264,934R	257,479	253,650
Hawaii	74,729	51,993	54,400	52,327R
Idaho	36,597	34,173R	34,365	37,728R
Illinois	954,601	1,327,870R	1,342,506	1,711,367
Indiana	242,551	281,985	275,369	313,117
Iowa	424,621	384,621	386,291	485,359R
Kansas	424,421	289,251R	290,718	325,936R
Kentucky	252,659	308,135	353,619	355,637R
Louisiana	3,142,468	2,869,293R	1,828,889	2,126,320
Maine	29,744	27,778	30,227	w
Maryland & D.C.	72,612	78,531	71,405	67,864R
Massachusetts	76,631	100,033R	73,515	73,829
Michigan	252,468	216,690	232,994	248,343
Minnesota	266,134	231,629	266,239	281,219R
Mississippi	159,170	176,603R	196,949	197,379R
Missouri	317,775	287,403R	315,519	447,728R
Montana	51,357	39,930	62,488	36,150
Nebraska	170,100	156,456	155,631	154,733R
Nevada	34,669	32,488	30,446	28,101
New Hampshire	46,818	47,287R	44,278	45,571R
New Jersey	222,273	242,767R	255,369	261,503
New Mexico	96,625	121,314	162,936	148,598
New York	173,268	202,786	194,784	187,154R
North Carolina	246,622	292,940	276,006	260,181R
North Dakota	51,366	56,441	45,046	56,551R
Ohio	1,449,124	1,543,384R	1,531,116	1,541,193R
Oklahoma	286,784	277,854R	310,884	278,829R
Oregon	46,973	48,966	46,821	48,434
Pennsylvania	254,689	296,920R	250,951	281,271
Rhode Island	11,645	10,796	10,146	10,472
South Carolina	92,587	109,878R	w	w
South Dakota	79,255	69,192	87,508	81,060R
Tennessee	81,665	58,914	96,391	99,416R
Texas	6,937,900	7,945,412R	6,565,445	6,022,586
Utah	54,096	60,104	44,998	54,805R
Vermont	30,610	24,324	w	w
Virginia	105,086	114,537R	w	w
Washington	60,615	60,850	51,430	50,302
West Virginia	95,321	126,339	118,809	103,053
Wisconsin	210,083	191,773	208,808	227,636R
Wyoming	90,606	78,850	70,215	68,341R
Total	19,441,489	20,803,370R	18,603,882	19,201,642R

R - Revised
w - Data withheld to avoid disclosing reports for individual companies. These reports included in totals.
(1) - Includes ethane - EIA data did not permit exclusion of ethane because of withheld data.

Source: Energy Information Administration

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SALES OF LP-GAS, BY STATES AND PRINCIPAL USES, 1982

(thousands of gallons)

	Residential and Commercial	Chemical and Industrial	Internal Combustion	Utility Gas	All Other Uses (2)	Total (3)
Alabama	113,286	w	11,903	w	23,481	157,161
Alaska	w	2,478	w	—	w	7,544
Arizona	w	w	8,239	w	4,633	58,800
Arkansas	81,696	w	23,665	w	31,472	145,002
California	219,239	214,216	71,294	14,257	58,968	577,974
Colorado	111,913	10,587	5,305	21,660	14,598	164,063
Connecticut	28,493	14,826	1,674	3,030	2,344	50,367
Delaware	18,631	6,362	693	95	5,637	31,418
Florida	190,313	76,440	25,899	7,561	15,459	315,672
Georgia	137,303	19,088	14,725	4,797	50,257	226,170
Hawaii	18,911	w	w	w	w	74,729
Idaho	16,061	4,994	w	w	5,370	36,597
Illinois	197,257	334,574	34,915	2,700	385,155	954,601
Indiana	141,947	42,154	w	w	44,757	242,551
Iowa	186,195	76,400	7,485	26,375	128,166	424,621
Kansas	79,840	253,224	17,318	11,043	63,356	424,421
Kentucky	75,188	151,419	20,080	180	5,792	252,659
Louisiana	42,263	3,057,722	18,127	w	w	3,142,468
Maine	19,948	8,402	900	w	w	29,744
Md. & D.C.	32,269	18,544	3,584	3,659	7,556	72,612
Massachusetts	35,232	6,021	3,528	30,016	1,834	76,631
Michigan	161,887	35,458	19,619	7,167	28,337	252,468
Minnesota	139,132	31,909	9,058	12,097	73,938	266,134
Mississippi	98,229	13,093	18,785	408	28,585	159,170
Missouri	238,363	11,946	8,550	36,122	22,794	317,775

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(Continued from the preceding page)

SALES OF LP-GAS, BY STATES AND PRINCIPAL USES, 1982

(thousands of gallons)

	Residential and Commercial	Chemical and Industrial (1)	Internal Combustion	Utility Gas	All Other Uses (2)	Total (3)
Montana	36,369	4,886	w	w	6,243	51,357
Nebraska	71,001	w	12,576	w	77,788	170,100
Nevada	22,124	3,557	1,559	w	w	34,669
New Hampshire	29,487	5,756	644	10,681	250	46,818
New Jersey	41,580	160,871	12,007	4,912	2,903	222,273
New Mexico	53,248	20,284	6,460	w	w	96,625
New York	123,589	26,321	10,189	3,853	9,316	173,268
North Carolina	124,569	22,590	10,464	3,180	85,819	246,622
North Dakota	18,555	1,245	11,760	3,483	16,323	51,366
Ohio	130,446	279,106	25,022	290	1,014,260	1,449,124
Oklahoma	107,576	93,160	30,362	715	54,971	286,784
Oregon	30,196	5,469	5,357	w	w	46,973
Pennsylvania	87,817	136,257	15,685	285	14,375	254,689
Rhode Island	5,932	2,209	w	w	2,038	11,645
South Carolina	64,461	7,485	w	w	14,734	92,587
South Dakota	46,792	w	3,937	w	26,075	79,255
Tennessee	53,643	9,350	11,140	497	7,035	81,665
Texas	233,684	6,404,755	86,839	11,922	200,700	6,937,900
Utah	21,235	3,651	6,197	15,968	7,045	54,096
Vermont	20,570	2,635	433	6,405	567	30,610
Virginia	64,694	15,888	5,642	795	18,067	105,086
Washington	34,199	8,731	11,108	w	w	60,615
West Virginia	12,617	80,437	1,438	w	w	95,321
Wisconsin	138,860	19,213	w	w	37,185	210,083
Wyoming	40,616	9,457	9,386	19,411	11,736	90,606
Total	4,047,120	11,774,144	643,946	318,397	2,657,882	19,441,489

w - Data withheld to avoid disclosing reports for individual companies. These reports included in totals.
(1) Includes refinery fuel.
(2) Includes secondary recovery of petroleum, farm uses, and use as synthetic natural gas feedstock. See Page i.
(3) Includes Ethane - EIA data did not permit exclusion of ethane because of withheld data.

Source: Energy Information Administration

THE DATA ON THIS PAGE CANNOT BE RELATED TO SIMILAR DATA IN EDITIONS OF "MARKET FACTS" PRIOR TO 1979 BECAUSE OF CHANGES IN THE ENERGY INFORMATION ADMINISTRATION DATA REPORTING METHODS. SEE PAGE i.

SALES OF LP-GAS, BY STATE AND TYPE OF GAS, 1982
(thousands of gallons)

	Ethane	Propane	Butane	Butane-Propane Mixture	Total (1)
Alabama	w	155,324	w	320	157,161
Alaska	—	w	—	w	7,544
Arizona	w	54,429	4,325	w	58,800
Arkansas	w	144,213	w	w	145,002
California	—	487,808	69,900	20,266	577,974
Colorado	w	130,158	33,055	w	164,063
Connecticut	—	49,693	w	w	50,367
Delaware	—	31,418	—	—	31,418
Florida	48,285	267,031	73	283	315,672
Georgia	w	225,627	w	415	226,170
Hawaii	w	w	—	44,866	74,729
Idaho	—	36,597	—	—	36,597
Illinois	414,235	495,566	w	w	954,601
Indiana	—	242,012	w	w	242,551
Iowa	w	372,493	1,541	w	424,621
Kansas	173,185	234,344	11,082	5,810	424,421
Kentucky	w	149,728	11,774	w	252,659
Louisiana	2,096,988	664,835	341,091	39,554	3,142,468
Maine	—	29,744	—	—	29,744
Maryland & D.C.	w	w	—	169	72,612
Massachusetts	—	76,059	w	w	76,631
Michigan	—	252,461	w	w	252,468
Minnesota	w	264,112	624	w	266,134
Mississippi	—	157,462	466	1,242	159,170
Missouri	w	317,308	w	w	317,775

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(Continued from the preceding page)

	Ethane	Propane	Butane	Butane-Propane Mixture	Total (1)
Montana	—	49,569	1,788	—	51,357
Nebraska	w	169,417	w	—	170,100
Nevada	—	34,651	w	w	34,669
New Hampshire	—	46,818	—	—	46,818
New Jersey	w	185,271	34,806	w	222,273
New Mexico	7,794	86,774	w	w	96,625
New York	w	171,170	1,143	w	173,268
North Carolina	—	246,274	w	w	246,622
North Dakota	w	49,904	w	—	51,366
Ohio	w	327,628	w	57,016	1,449,124
Oklahoma	63,298	210,623	12,086	777	286,784
Oregon	w	46,838	w	w	46,973
Pennsylvania	77,701	176,670	w	w	254,689
Rhode Island	—	w	w	33	11,645
South Carolina	—	92,350	w	w	92,587
South Dakota	—	79,255	—	—	79,255
Tennessee	—	80,908	w	w	81,665
Texas	3,364,691	2,785,507	766,181	21,521	6,937,900
Utah	—	39,858	14,238	—	54,096
Vermont	—	30,610	—	—	30,610
Virginia	w	104,974	w	—	105,086
Washington	—	58,786	w	w	60,615
West Virginia	w	30,720	—	w	95,321
Wisconsin	w	208,763	w	w	210,083
Wyoming	w	78,413	12,042	w	90,606
Total	7,521,936	10,350,718	1,368,784	200,051	19,441,489

w - Data withheld to avoid disclosing reports for individual companies. These reports included in totals.
(1) Includes ethane - EIA Data did not permit exclusion of ethane because of withheld data.

Source: Energy Information Administration

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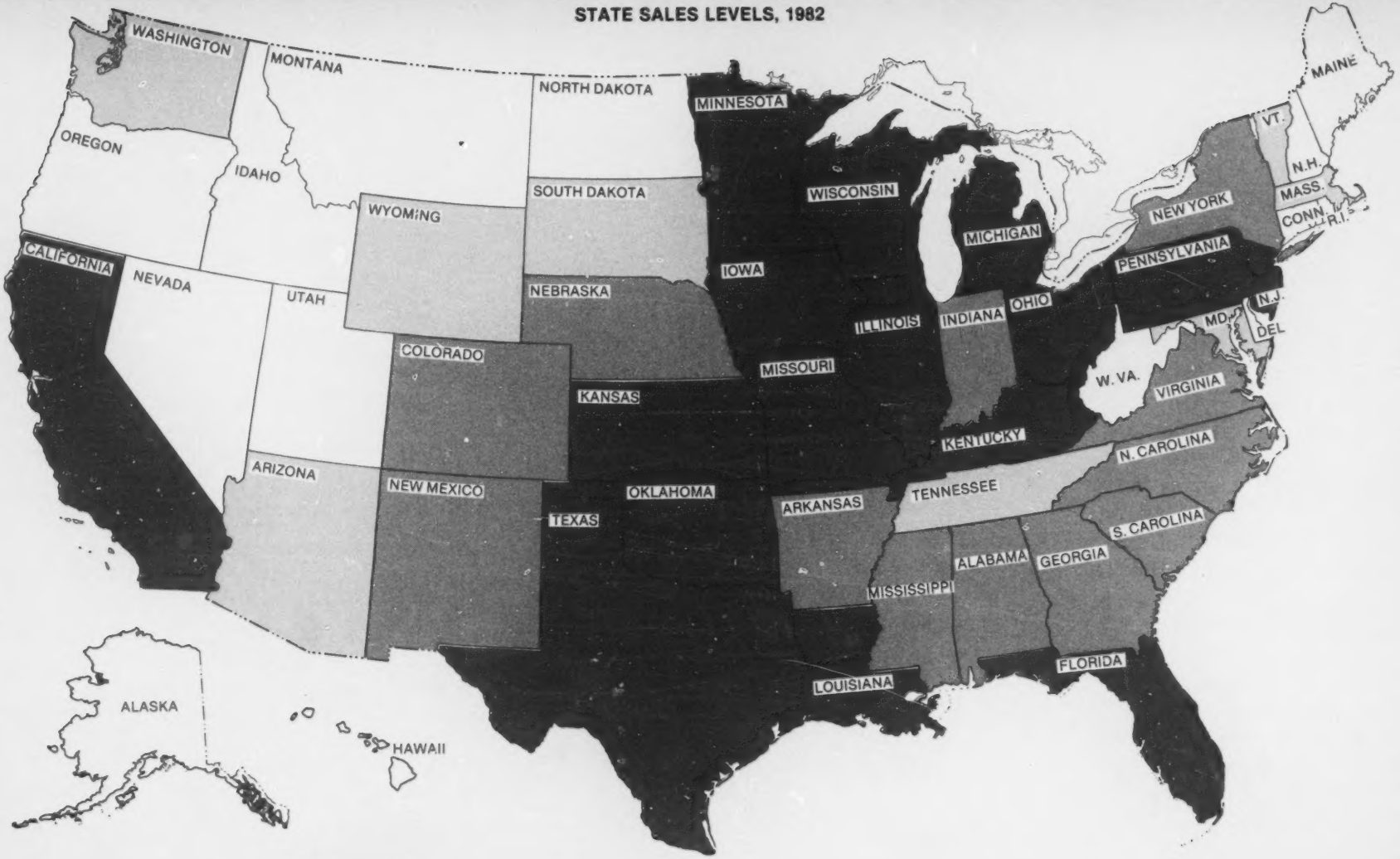
STATE SALES LEVELS, 1982



250 Million Gals. or Over

100 — 250 Million

50 — 100 Million

Under 50 Million

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MONTHLY LP-GAS PRODUCTION
(thousands of gallons)

	1979	1980	1981	1982
JANUARY	2,024,694	1,815,744	1,813,182	1,646,988
FEBRUARY	1,773,450	1,476,258	1,397,088	1,180,830
MARCH	1,390,830	1,358,070	1,253,994	1,332,114
APRIL	1,135,512	829,794	964,782	1,096,620
MAY	999,642	1,014,510	956,214	1,015,224
JUNE	986,622	950,040	983,388	850,416
JULY	1,089,648	955,458	941,850	1,027,488
AUGUST	1,222,284	1,014,384	935,382	959,700
SEPTEMBER	1,170,162	1,088,682	1,129,716	1,089,102
OCTOBER	1,478,736	1,397,802	1,438,374	1,148,616
NOVEMBER	1,505,070	1,280,706	1,167,012	1,295,238
DECEMBER	1,688,988	1,787,436	1,414,266	1,272,936
TOTAL	16,465,638	14,968,884	14,395,248	13,915,272

UNITED STATES 1974-82 LP-GAS IMPORTS, BY P.A.D. DISTRICTS
(thousands of gallons)

Petroleum Administration District	1974	1975	1976	1977	1978	1979	1980	1981	1982
I	250,784	285,171	258,762	439,442	216,613	386,533	311,927	373,800	219,828
II	812,549	759,805	921,421	1,239,965	976,513	1,514,546	1,395,441	1,010,310	1,075,032
III	391,752	228,697	284,466	390,386	152,157	358,789	304,035	473,634	425,124
IV	232,981	242,285	247,296	235,322	183,772	193,353	202,379	220,164	247,548
V	193,961	213,368	284,382	180,512	199,158	214,858	192,324	216,384	240,450
Total United States	**1,882,027**	**1,729,326**	**1,996,327**	**2,485,627**	**1,728,213**	**2,668,079**	**2,406,106**	**2,294,292**	**2,207,982**

Source: Energy Information Administration

CANADIAN LP-GAS SUPPLY AND DISPOSITION, 1982
(thousands of gallons)

PROPANE	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Gas Plant Production	396,058	316,331	338,760	381,684	1,432,833
Refinery Production	91,893	81,656	87,247	88,889	349,685
Imports	—	—	—	—	—
Domestic Purchases	546,022	402,590	418,117	567,489	1,929,218
Inventory Changes	34,724	(35,423)	(22,508)	126,260	103,053
Total	1,068,697	765,154	821,616	1,159,322	3,814,789
Plant & Refinery Use	6,789	17,171	12,436	7,023	43,419
Solvent Flood	39,461	30,293	32,766	29,235	131,755
Petrochemical Industry	16,730	4,613	13,104	17,950	52,397
Residential, commercial, industrial	741,817	490,432	530,022	766,079	2,528,350
Export	267,402	222,954	230,000	342,740	1,063,096
Losses & Adjustments	(3,502)	(266)	3,284	(3,705)	(4,189)
Total	1,068,697	765,197	821,612	1,159,322	3,814,828

BUTANE	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Gas Plant Production	242,143	197,291	213,570	230,808	883,812
Refinery Production	85,104	112,412	124,102	77,625	399,243
Imports	—	—	—	—	—
Domestic Purchases	352,521	256,577	320,524	292,622	1,222,244
Inventory Changes	11,404	(10,153)	(42,397)	75,957	34,812
Total	691,172	556,127	615,799	677,012	2,540,111
Plant & Refinery Use	46,660	35,022	33,729	44,654	160,065
Solvent Flood	25,322	19,902	23,547	20,725	89,496
Petrochemical Industry	99,242	76,437	84,296	104,570	364,544
Residential, commercial, industrial	337,538	254,674	315,972	289,653	1,197,839
Export	181,777	171,065	160,814	224,632	738,288
Losses & Adjustments	633	(973)	(2,610)	(7,223)	(10,173)
Total	691,172	556,127	615,748	677,011	2,540,059

Source: Statistics Canada

UNITED STATES LP-GAS IMPORTS, 1981-82
(thousands of gallons)

BY COUNTRY	1982	1981
Algeria	25,761	48,646
Australia	22,412	28,340
Canada	1,708,218	1,604,741
France	—	12,991
Indonesia	68,188	40,035
Japan	15,190	—
Mexico	297,225	295,361
Neth. Antilles	3,689	8,043
Netherlands	6,283	—
Peru	3,068	—
Saudi Arabia	140,758	327,090
United Kingdom	43,372	9,483
Venezuela	88,746	98,527
Others	8,822	8,075
TOTAL	2,431,732	2,481,332

BY MONTH	1982	1981
January	296,440	306,315
February	220,878	240,862
March	160,559	157,604
April	148,121	136,735
May	152,284	144,576
June	189,558	167,406
July	179,430	179,274
August	156,684	193,703
September	252,789	199,659
October	212,653	327,852
November	259,925	190,616
December	202,411	236,730
TOTAL	2,431,732	2,481,332

R - Revised
Source: Bureau of the Census

UNITED STATES LP-GAS EXPORTS, 1981-82
(thousands of gallons)

BY COUNTRY	1982	1981
Canada	363,839	295,168
France	45,893	20
Japan	415	268
Mexico	278,028	276,109
Netherlands	61,032	12,311
Saudi Arabia	3,604	20
South Africa	36	163
West Germany	34	—
Others	107,250	5,507
TOTAL	860,131	589,566

BY MONTH	1982	1981
January	88,211	23,424
February	54,781	21,707
March	85,624	20,878
April	85,517	28,807
May	45,111	20,973
June	121,055	26,414
July	39,552	18,617
August	60,028	190,559
September	85,501	20,925
October	92,977	93,339
November	36,745	65,054
December	65,029	58,869
TOTAL	860,131	589,566

QUARTERLY TANK SHIPMENTS
1971-82

QUARTER	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
First	43,899	68,782	92,244	53,448	18,582	25,595	33,121	27,980	34,649	65,934R	71,944	53,572
Second	66,118	72,917	96,550	55,074	22,725	31,755	45,871	38,501	61,315	81,028R	83,830	45,071
Third	73,873	118,843	80,204	44,583	31,952	38,123	44,742	39,617	69,005	81,412R	85,869	48,469
Fourth	112,145	128,583	77,344	32,977	38,010	50,583	55,303	51,874	74,586	59,016R	64,241	57,492
Year Total	**296,035**	**389,125**	**346,342**	**186,082**	**111,269**	**146,056**	**179,037**	**157,972**	**239,555**	**287,390R**	**305,884**	**204,604**

Source: NLPGA

QUARTERLY REGULATOR SHIPMENTS
1971-82

QUARTER	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
First	371,097	407,180	527,971	282,770	328,038	510,865	707,029	828,603	1,089,877	1,048,099	806,859	1,110,123
Second	431,443	445,710	451,977	293,489	402,248	625,045	715,807	741,158	734,847	444,389	624,570	708,216
Third	413,539	413,953	353,307	312,676	312,834	493,122	334,550	463,217	424,764	334,575	482,716	247,797
Fourth	363,617	473,033	303,428	259,156	291,217	499,081	576,206	709,051	819,734	692,250	766,665	567,256
Year Total	**1,579,696**	**1,739,876**	**1,636,683**	**1,148,091**	**1,334,337**	**2,128,113**	**2,333,592**	**2,742,029**	**3,069,222**	**2,519,313**	**2,680,810**	**2,633,392**

Source: NLPGA

QUARTERLY CYLINDER PRODUCTION (1)
1971-82

QUARTER	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
First	433,125R	422,550	512,321	270,814	285,104	418,882	466,176	493,223	544,223R	634,970R	662,999R	760,573
Second	354,375R	474,584	505,581	331,861	399,605	438,318	518,409	533,156	530,418R	312,208R	719,166R	876,929
Third	370,231R	321,880	287,852	336,572	332,281	403,534	253,221	313,386	258,874R	275,847R	373,576R	290,109
Fourth	292,488R	343,422	278,320	218,903	277,884	343,404	322,592	398,451	336,813R	403,971R	480,051R	427,530
Year Total	**1,450,219R**	**1,562,436**	**1,584,074**	**1,158,150**	**1,294,874**	**1,604,138**	**1,560,398**	**1,738,216**	**1,670,328R**	**1,626,996R**	**2,235,792R**	**2,355,141**

R - Revised

(1) Authorized cylinders for LP-gas usage are 3, 3A, 3AA, 3B, 3E, 4A, 4B, 4BA, 4B240ET, 4BW240, 4B240X, 4B240FLW and 4E. However, only the readily identifiable LP-gas grouping of 4B, 4BA and 4BW240 is listed above. 4E is listed starting with 1970.

(2) Figures for October were inadvertently omitted, and are included in the figures reported for the first quarter of 1970.

(3) First quarter 1970 contains October 1969.

Source: Compressed Gas Association and NLPGA

LP-GAS CYLINDER PRODUCTION, BY SIZE(1)
1968-82

SIZE IN POUNDS (2)	5	10	20	33	40	60	100	200	300	420	All Other	TOTAL
1968	38,736	50,789	630,812	148,635	14,761	28,312	257,013	11,033	21,922	*	1,290	1,203,303
1969	67,516	32,431	481,211	115,439	10,779	8,290	192,456	5,714	16,124	*	0	929,960(3)
1970	124,231	40,823	492,911	132,277	8,777	11,139	194,371	12,399	29,670	*	35,310	1,081,908(4)
1971	21,254R	28,948R	860,237R	266,864R	44,020R	12,307R	175,348R	11,309R	2,161R	27,771R	0	1,450,219R
1972	29,619	31,264	858,836	374,450	52,870	12,888	138,994	9,683	1,699	49,015	3,118	1,562,436
1973	36,375	33,997	902,107	340,085	60,188	21,559	144,553	10,373	1,737	33,100	0	1,584,074
1974	23,862	44,911	624,856	248,271	40,828	24,443	107,184	9,483	2,065	19,926	12,321	1,158,150
1975	13,958	36,373	721,714	266,213R	52,583	39,733	81,469	8,608	881R	18,236R	55,106R	1,294,874
1976	13,264	32,532	953,719	400,971	47,382	33,344	69,543	12,782	52R	18,990R	21,558R	1,604,139
1977	27,682	50,880	902,726	381,742	56,826	19,189	61,362	9,742	0	26,146R	24,123R	1,560,398
1978	24,251	48,761	1,070,162	381,466	60,223	21,787	74,026	9,457	0	20,356R	27,718R	1,738,206
1979	16,297R	35,396R	1,136,955R	250,781R	57,665R	18,752R	85,020R	6,821R	0	17,819R	44,260R	1,669,766R
1980	13,882R	16,723R	1,194,210R	208,247R	46,849R	14,600R	69,404R	6,423R	572R	25,149R	30,937R	1,626,996R
1981	15,428R	24,041R	1,784,230R	235,676R	46,476R	9,653R	54,186R	2,958R	636R	24,267R	38,240R	2,235,791R
1982	14,133	19,718	1,945,972	226,141	44,401	10,288	44,248	3,981	0	21,790	24,469	2,355,141

***420 lb. cylinders included in "All Other".**

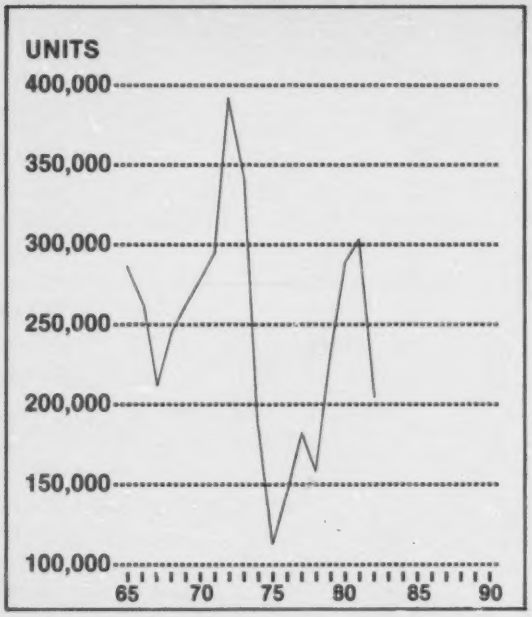
LP-GAS CYLINDER PRODUCTION, BY SIZE(1)
1957-67

SIZE IN POUNDS	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967(5)
20	362,312	295,661	357,015	353,175	249,478	367,[illegible]0	300,757	413,836	423,483	387,801	207,380
60	17,270	8,826	11,148	8,130	9,891	11,688	14,650	11,755	12,822	7,076	6,860
100	486,387	390,091	448,627	534,091	362,553	341,278	189,415	155,285	235,071	239,336	139,050
150-200	14,211	10,258	8,353	6,519	7,427	9,631	8,635	7,947	15,205	10,428	6,290
300-420	21,945	21,039	19,734	13,321	21,371	23,257	20,499	23,123	19,519	8,568	18,280
Unclassified	483,606	50,746	119,810	163,215	100,947	159,453	129,885	202,649	184,349	223,461	153,640
TOTALS	**1,385,731**	**776,621**	**964,687**	**1,078,451**	**751,667**	**912,337**	**663,841**	**814,595**	**890,449**	**876,670**	**531,500**

R - Revised
(1) Authorized cylinders for LP-Gas usage are 3, 3A, 3AA, 3B, 3E, 4A, 4B, 4BA, 4B240ET, 4BW240, 4B240X, 4B240FLW and 4E. However, only the readily identifiable LP-Gas grouping of 4B, 4BA, and 4BW240 is listed above. 4E is listed starting with 1970.
(2) For clarity and convenience, size classifications have been listed by the common cylinder sizes.
(3) Figures for October were inadvertently omitted, and are included in the figures reported for the first quarter of 1970.
(4) 1970 figures contain October 1969 figures.
(5) Experienced reporting difficulties.

Source: Compressed Gas Association and NLPGA

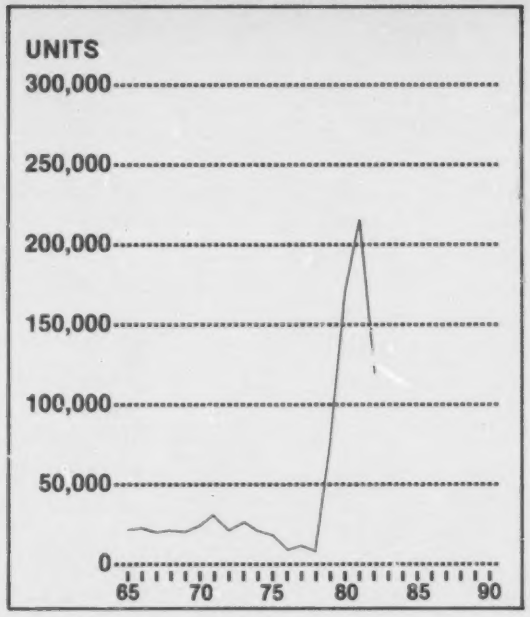
TANK SHIPMENTS



ANNUAL TANK SHIPMENTS 1957-82

1957	207,252
1958	165,533
1959	186,302
1960	141,017
1961	148,524
1962	218,308
1963	242,600
1964	269,278
1965	282,350
1966	258,369
1967	223,451
1968	248,036
1969	261,904
1970	277,121
1971	296,035
1972	389,125
1973	346,342
1974	186,082
1975	111,269
1976	146,056
1977	179,037
1978	157,972
1979	239,555
1980	287,390R
1981	305,884
1982	204,604

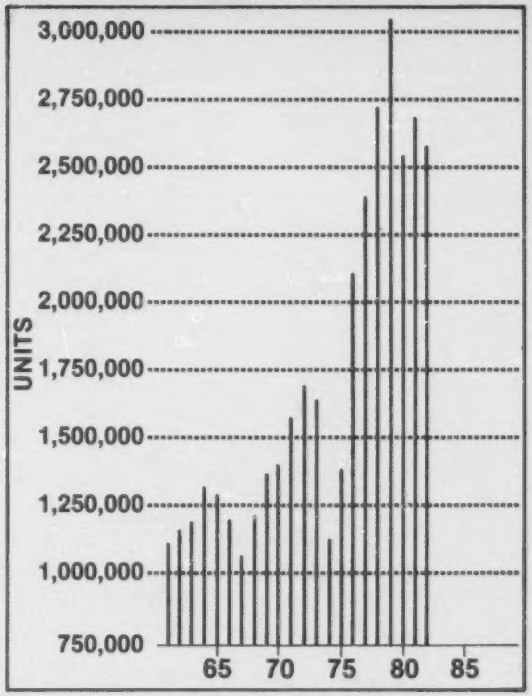
ENGINE FUEL TANK SHIPMENTS



ANNUAL ENGINE FUEL TANK SHIPMENTS 1965-82

1965	21,922
1966	22,815
1967	17,645
1968	20,185
1969	18,577
1970	24,988
1971	32,266
1972	23,284
1973	27,058
1974	22,881
1975	15,398
1976	9,692
1977	11,340
1978	7,389
1979	76,228
1980	172,136
1981	216,652
1982	117,026

REGULATOR SHIPMENTS



ANNUAL REGULATOR SHIPMENTS 1935-82

1935	44,275	1959	1,050,230
1936	85,661	1960	898,609
1937	113,916	1961	1,084,754
1938	110,860	1962	1,136,224
1939	225,510	1963	1,181,249
1940	340,404	1964	1,295,479
1941	368,244	1965	1,275,253
1942	114,855	1966	1,203,690
1943	40,097	1967	1,065,472
1944	106,060	1968	1,245,876
1945	259,002	1969	1,357,168
1946	1,012,045	1970	1,374,306
1947	1,006,064	1971	1,579,696
1948	869,418	1972	1,739,876
1949	783,711	1973	1,636,683
1950	1,259,653	1974	1,148,091
1951	1,146,071	1975	1,334,337
1952	909,289	1976	2,128,113
1953	949,534	1977	2,333,592
1954	906,178	1978	2,742,029
1955	1,175,253	1979	3,069,222
1956	1,095,063	1980	2,519,313
1957	921,416	1981	2,680,810
1958	989,560	1982	2,633,392

Source: NLPGA

ANNUAL TANK SHIPMENTS, BY SIZES, 1953-82
SIZE IN GALLONS (Water Capacity)

YEAR	0-399*	Engine Fuel	400-599	600-1099	Over 1099	Transport & Delivery** 1000-12000	TOTALS
1953	108,196		71,362	25,575	43,877	—	249,010
1954	89,313		83,103	22,262	15,050	—	209,728
1955	122,726		98,372	21,945	18,534	—	261,577
1956	139,433		98,288	26,472	1,502	—	265,695
1957	117,975		71,974	16,069	1,234	—	207,252
1958	83,321		66,617	14,202	1,393	—	165,533
1959	102,779		65,069	16,996	1,458	—	186,302
1960	80,387		47,918	11,499	1,213	—	141,017
1961	85,918		50,449	10,923	1,234	—	148,524
1962	125,209		75,096	15,881	2,122	—	218,308
1963	126,041		90,157	22,170	4,232	—	242,600
1964	141,746		104,584	21,279	1,669	—	269,278
1965	113,285	21,922	116,462	28,306	1,451	924	282,350
1966	104,477	22,815	103,858	24,833	1,364	1,022	258,369
1967	92,881	17,645	88,819	21,671	1,298	1,136	223,450
1968	115,168	20,185	84,285	25,902	1,332	1,164	248,036
1969	120,431	18,577	93,905	26,570	887	1,534	261,904
1970	116,473	24,988	105,399	27,638	1,069	1,552	277,121
1971	122,032	32,266	118,996	29,305	1,080	1,356	296,035
1972	166,712	23,284	154,963	40,747	2,082	1,337	389,125
1973	138,337	27,058	114,319	60,913	4,301	1,414	346,342
1974	60,710	22,881	63,241	34,554	3,483	1,213	186,082
1975	40,375	15,398	36,362	16,310	2,054	770	111,269
1976	61,752	9,692	52,067	19,959	1,852	734	146,056
1977	81,897	11,340	53,121	27,636	3,653	1,390	179,037
1978	76,170	7,389	48,961	20,344	1,296	812	157,972
1979	84,986	76,228	55,773	20,922	1,048	598	239,555
1980	66,231	172,136	32,899	14,588	912	624	287,390
1981	51,608	216,652	24,139	12,069	1,006	410	305,884
1982	56,847	117,026	19,881	9,744	611	495	204,604

**Includes engine fuel tanks through 1964.*
***Not reported separately prior to 1965. See Page 22 for breakdown.*

Source: NLPGA

CARBURETOR SALES*, BY APPLICATION, 1971-82

APPLICATION	UNIT SALES 1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Farm Tractors	6,561	4,660	6,595	10,837	3,035	3,216	2,883	2,111	1,897	643	651	254
Industrial Trucks	63,998	65,829	97,729	92,481	56,869	65,369	80,110	89,959	139,817	113,259	100,007	72,070
Automobiles*	12,711	11,682	20,539	29,789	9,178	8,591	8,881	9,440	17,117	34,339	26,562	13,921
Trucks	28,371	27,249	55,079	54,720	30,872	32,793	30,527	25,702	79,156	227,046	198,776	150,620
Stationary Engines	9,704	8,252	10,409	14,923	9,678	11,867	11,526	11,157	10,981	14,740	20,378	8,960
Miscellaneous +	5,685	3,965	1,460	1,305	1,159	375	300	200	305	440	5,934	8,659
Buses	597	103	100	240	380	1,346	1,458	795	457	508	2,199	2,460
TOTAL SALES	**127,627**	**121,740**	**191,911**	**204,295**	**111,171**	**123,557**	**135,685**	**139,364**	[illegible]730	**390,975**	**354,507**	**256,944**

**Includes sales to original equipment manufacturers and after market sales for the purpose of conversion or replacement.*
+ Includes non-categorized sales and truck refrigerators, sweepers, etc.

Source: NLPGA and Bureau of the Census.

LP-GAS TANK TRUCK PRODUCTION*
1963-82

1963	438
1964	451
1965	310
1966	357
1967	307
1968	218
1969	221
1970	312
1971	302
1972	326
1973	384
1974	492
1975	178
1976	323
1977	800(R)
1978	431(R)
1979	177
1980	188
1981	76
1982	60

**From 1965 to date tank truck data is for trucks ranging in size from 7,500 to 12,000 water gallon capacity.*
(R) - Revised

Source: NLPGA and Bureau of the Census

SHIPMENTS OF LP-GAS DELIVERY AND TRANSPORT TRUCKS
1981-82

SIZE	1982	1981
1,000 — 1,399 Gallons	1	0
1,400 — 1,999 Gallons	1	0
2,000 — 2,599 Gallons	172	131
2,600 — 3,499 Gallons	256	192
3,500 — 7,499 Gallons	5	11
7,500 — 12,000 Gallons	60	76
TOTAL	**495**	**410**

Source: NLPGA

AGRICULTURAL CROP DRYER SHIPMENTS
1966-81

GRAIN, HAY AND SEED DRYERS

YEAR	Heated Types*	Unheated Air Types	Totals
1966	14,904	2,535	17,439
1967	15,278	—	15,278
1968	17,318	925	18,243
1969	10,103	1,519	11,622
1970	7,153	2,019	9,172
1971	13,245	2,279	15,524
1972	16,456	3,358	19,814
1973	23,364	12,140	35,504
1974	34,781(R)	15,936(R)	50,717(R)
1975	24,540(R)	19,586(R)	44,126(R)
1976	29,904(R)	24,997(R)	54,901
1977	41,427(R)	45,668(R)	87,095(R)
1978	39,951(R)	59,912(R)	99,863(R)
1979	32,308(R)	48,687(R)	80,995(R)
1980	24,301(R)	26,162(R)	50,463(R)
1981	20,271	27,422	47,693

**Consist of batch type, continuous flow, heated air and supplemental heater units estimated by manufacturers to be 90% to 95% LP-Gas fueled.*

(R) Revised

Source: Bureau of the Census

CLASSIFICATIONS FOR LP-GAS APPLICATIONS

Residential & Commercial
- Kitchen Ranges
- Barbecue Grills
- Water Heaters
- Clothes Dryers
- Central Heating Systems
- Central Air Conditioning Systems
- Space Heaters
- Patio and Yard Lamps
- Patio and Pool Deck Heaters
- Recreation: Camp Cookers, Heaters, Lights, Refrigeration
- Infra-Red Heaters
- Laundry Equipment
- Greenhouses
- Incinerators
- Roofing Kettles
- Street Pavers

Internal Combustion
- Industrial Lift Trucks
- Industrial Sweepers
- Stationary Engines
- Bus and Truck
- Automobile
- Portable Engines
- Refrigeration

Chemical & Industrial
- Raw Materials
- Solvents
- Standby Fuel
- Flame Cutters
- Metallurgical Furnaces
- Industrial Dryers
- Electric Generation
- Construction Heaters
- Refinery Fuel

Utility Gas
- Propane-Air Systems
- Propane Enrichment

Synthetic Rubber

Secondary Recovery of Petroleum

Miscellaneous
- Farm Tractors
- Farm Home Uses
- Crop Dryers
- Flame Cultivation
- Weed and Insect Control
- Tobacco Curers
- Poultry Brooders
- Stock Tank Heaters
- Pig Farrowers

*Energy Information Administration

GAS APPLIANCE SHIPMENTS*

1953-82

	Domestic Ranges	Water Heaters	Warm Air Furnaces	Boilers	Conversion Burners	Direct Htg. Eqpt.	Floor Furnaces	Wall Furnaces	Clothes Dryer	Gas Grills
1953	2,184,400	2,182,700	503,600	72,000	213,100	1,674,315	168,500	310,410	158,547	
1954	2,023,200	2,360,500	678,000	80,200	224,400	951,698	144,120	358,043	236,148	
1955	2,334,800	2,748,200	874,400	90,100	209,100	1,135,720	191,555	383,907	368,206	
1956	2,177,400	2,762,100	812,600	96,300	186,900	1,089,304	98,270	301,962	434,365**	
1957	1,968,600	2,532,300	702,600	105,400	163,500	931,982	76,031	243,559	392,085	
1958	1,884,400	2,673,400	853,700	123,200	142,000	1,485,000	97,500	389,000	378,700	
1959	2,012,500	2,953,600	1,053,400	159,600	156,200	1,446,300	97,300	449,500	476,500	
1960	1,814,300	2,720,600	900,000	153,200	131,500	1,210,700	86,700	366,000	431,500	
1961	1,830,000	2,731,700	929,400	168,000	115,700	1,066,600	76,900	390,300	411,700	
1962	1,981,400	2,876,000	1,008,500	175,000	104,200	1,160,800	77,800	437,300	474,400	
1963	2,072,300	2,597,400	1,101,900	184,000	108,400	1,323,800	77,200	448,100	534,700	
1964	2,170,400	2,724,070	1,185,700	199,600	100,800	1,190,000	73,080	482,400	632,200	
1965	2,266,400	2,736,750	1,237,500	200,300	92,900	994,000	70,820	430,100	710,000	
1966	2,162,600	2,636,440	1,212,900	186,500	92,800	1,033,800	67,200	447,600	751,200	
1967	2,123,000	2,554,510	1,145,700	173,800	84,600	920,000	58,310	412,800	828,900	
1968	2,285,900	2,756,300	1,428,100	186,800	79,200	973,700	64,910	490,300	876,000	
1969	2,471,100	2,742,430	1,546,000	175,800	76,900	1,027,900	66,900	509,900	905,400	
1970	2,361,700	2,785,210	1,471,200	163,800	65,800	928,900	55,800	489,200	851,700	
1971	2,549,300	3,088,480	1,795,200	157,200	52,900	782,600	51,800	560,000	847,000	
1972	2,661,100	3,162,820	2,066,200	155,700	39,700	708,300	42,880	719,660	936,100	
1973	2,481,400	3,080,440	1,719,500	146,700	43,100	678,000	41,560	610,000	925,700	
1974	1,950,100	2,568,650	1,476,300	122,600	88,900	488,400	37,570	371,610	738,900	
1975	1,618,400	2,645,110	1,185,800	88,100	38,800	332,000	33,430	401,600	671,800	
1976	1,823,500	3,112,130	1,554,400	112,600	26,200	306,400	24,000	499,430	707,200	
1977	1,745,500	3,070,221	1,508,100	113,100	N/A	193,313	23,400	475,330	735,800	722,300
1978	1,794,200	2,921,052	1,636,100	125,900	N/A	174,900	18,070	513,900	757,000	910,000
1979	1,798,600	2,887,275	1,862,600	221,300	N/A	192,700	15,560	349,930	768,000	1,310,000
1980	1,538,500	2,818,263	1,445,700	293,300	N/A	221,933	12,240	284,690	682,200	1,235,000
1981	1,495,700	2,785,207	1,416,700	161,600	N/A	133,034	10,552	242,831	639,000	1,526,700
1982	1,367,500	3,040,947	1,155,600	147,600	N/A	182,604	18,746	132,640	584,200	1,765,960

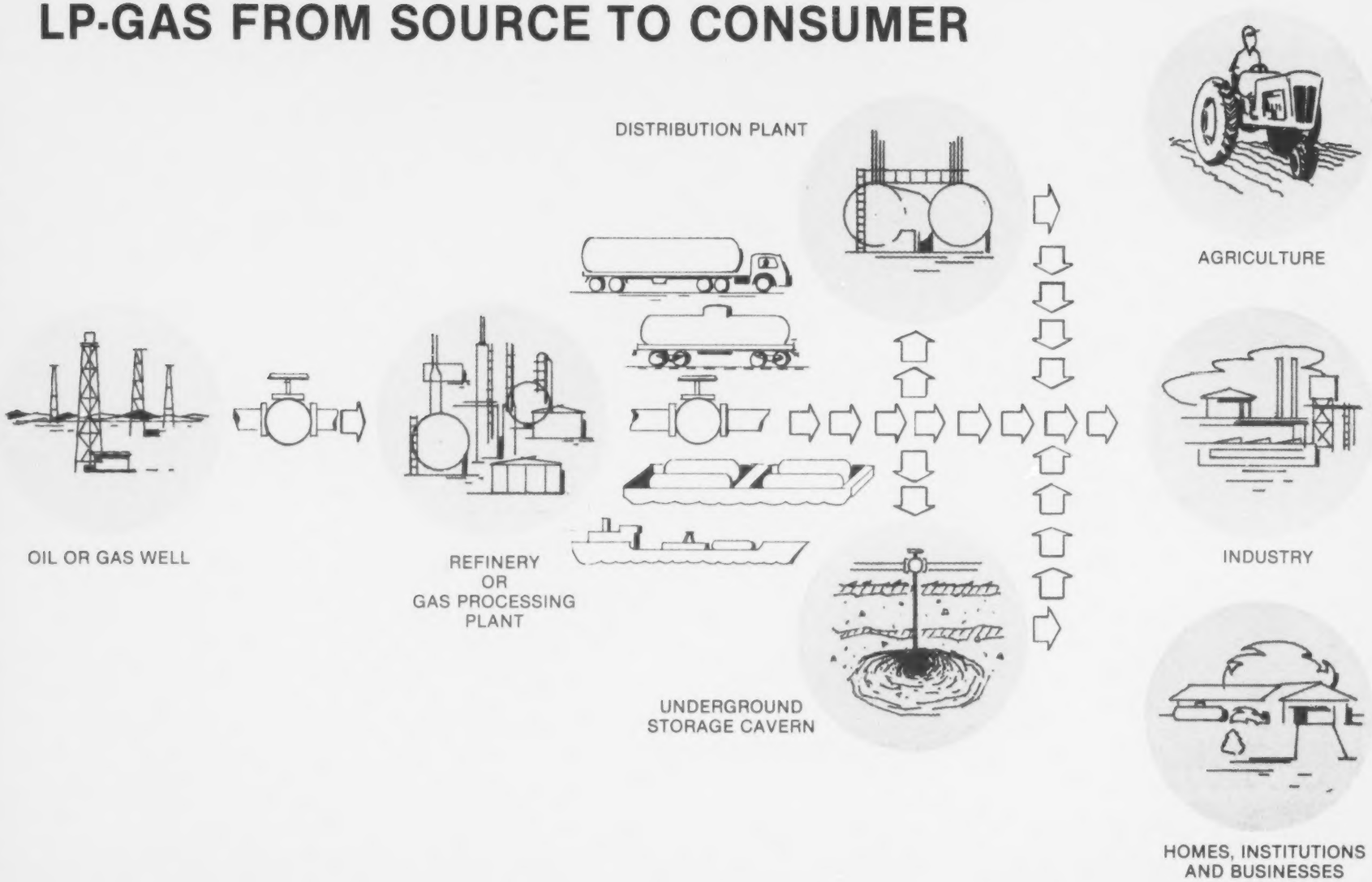
N/A - Not Available

LP-Gas and city gas combined.

***Includes combination washer-dryers in 1956 only.*

Source: Gas Appliance Manufacturers Association

LP-GAS FROM SOURCE TO CONSUMER



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